
Competition Policy and Canada's New Breed of "Copyright" Law

Alex Cameron and Robert Tomkowicz*

Open digital networks present a number of challenges for copyright holders. With a few clicks of a mouse, a digital work can be copied perfectly and distributed globally without the copyright holder's knowledge or permission. In response to these challenges, copyright holders have started using technological means—called technological protection measures ("TPMs")—to control access to and use of copyright works. They have also sought legal protections for their TPMs through amendments to copyright laws. These legal protections typically make it illegal to circumvent TPMs and, in some countries, to make devices that circumvent TPMs. These are commonly known as "anticircumvention" and "anti-device" provisions, respectively. Although often overlooked, anticircumvention and anti-device provisions are a new breed of "copyright" law that may come to be implemented in Canada and that spawns substantial implications and unintended consequences for Canadian competition policy.

Identifying and addressing some of these implications and consequences is the focus of this article. Part I briefly sketches the traditional relationship between competition and copyright policy in Canada. Part II sets out a basic framework for analysis by describing copyright holders' new technological controls, and the possible shape of amendments to Canadian copyright law. Part III explores the new competition policy issues spawned by legal protections for TPMs and digital rights management. Finally, consistent with recent indications from the commissioner of competition that intellectual property will receive increased attention from the Competition Bureau, Part IV discusses concrete ways that Canada's competition authority can ensure that Canada maintains vibrant competition law and policy in the face of possible changes to copyright law.

Les réseaux numériques ouverts présentent un nombre de défis aux détenteurs de droits d'auteur. Avec quelques clics de souris, leurs œuvres numériques peuvent être copiées parfaitement et distribuées sans leur connaissance ni leur permission partout dans le monde. En réponse à ces défis, les détenteurs de droits d'auteur adoptent de plus en plus des mesures techniques — surnommées mesures de protection technique (MPT) — afin de contrôler l'accès et l'utilisation de leurs œuvres. Ces détenteurs cherchent également à obtenir une protection légale pour leurs MPT. Cette forme de protection juridique a généralement pour objet de rendre illicite le contournement des MPT, et, dans quelques pays, la fabrication de dispositifs qui contournent les MPT. Ces mesures anti-contournement et anti-dispositif constituent une nouvelle espèce de droit d'auteur et pourraient éventuellement être adoptées au Canada. Quoique souvent négligée, cette nouvelle forme de droit d'auteur a des implications importantes et des conséquences imprévues sur la politique de la concurrence au Canada.

Cet article a pour objet d'identifier et d'adresser quelques-unes de ces implications et conséquences. La Partie I brosse une esquisse de la relation traditionnelle entre les politiques de la concurrence et des droits d'auteur au Canada. La Partie II présente un cadre d'analyse par l'entremise d'une description des nouvelles mesures de contrôle technique employées par les détenteurs de droit d'auteur. La Partie III explore les nouvelles questions de politique engendrées par le développement de mesures de protection pour les MPT et pour la gestion des droits numériques. Finalement, à la lumière des indices récents du commissaire de la concurrence selon lesquels la propriété intellectuelle recevra davantage d'attention de la part du Bureau de la concurrence, la Partie IV de l'article discute des façons concrètes grâce auxquelles l'autorité de concurrence du Canada peut assurer un droit et une politique de la concurrence vibrants face aux changements éventuels aux droits d'auteur.

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Legal protection for TPMs is the equivalent of making screw-drivers illegal because they can be used to break and enter ... Good legislation targets the *illegal act*, not the *legal tools* the crook might use. Canada is already well-served by laws protecting copyright. Outlawing the technological tools—the screw-drivers of the technology community—undermines Canada’s commitment to fostering an economy built on innovation and opportunity.

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Introduction

Open digital networks present a number of opportunities and challenges for copyright holders. On the one hand, copyright holders are keen to exploit the increased efficiencies of digital distribution, including the possibility for “[s]uperdistribution”,² whereby consumers themselves become distributors of content.³ On the other hand, copyright holders are wary of the fact that, with a few clicks of a mouse, their digital works can be copied perfectly and distributed globally without their knowledge or permission and often in violation of their legal rights.

In response to these challenges, copyright holders have started using technological means—technological protection measures (“TPMs”)—to attempt to control individuals’ access to and use of copyright works. TPMs are often combined with other technologies to form complex digital rights management (“DRM”) systems. As discussed in Part II.C of this article, DRM systems are used principally as contract-enablers; the “rights management” in DRM is all about granting and managing contractual (i.e., licence) rights to access and use creative works. DRM gives copyright holders a powerful new ability to enter and technologically enforce licence agreements with each individual end user. Such licence agreements and the

¹ Quoted in Canadian Internet Policy and Public Interest Clinic, Press Release, “Proposed Copyright Legislation Could Cripple Canadian Research and Businesses: IT Security Research and Technology Facing Civil and Criminal Liability,” (8 March 2005), online: CIPPIC <http://www.cippic.ca/en/news/documents/Press_Release_-_Security_Businesses.pdf> [CIPPIC Press Release] [emphasis in original].

² Todd Beals, “What Is the Term Superdistribution And How Does it Relate To DRM For Music? (and Video and Books and Photos and ...)” *The Beals Media Update* (1 September 2004), online: CMS <http://www.creative-media-services.com/What_Is_SuperDistribution.pdf>.

³ See U.S., *Piracy and Privacy: The Paradox of Illegal File Sharing on Peer-to-Peer Networks and the Impact of Technology on the Entertainment Industry: Hearing Before the Senate Committee on Governmental Affairs*, 108th Cong. (30 September 2003) (statement of Jack Valenti, President and CEO, Motion Picture Association), online: U.S. Senate <<http://www.senate.gov/~govt-aff/index.cfm?Fuseaction=Hearings.Testimony&HearingID=120&WitnessID=415>> (“The Internet, without doubt, is the greatest delivery system yet known to this planet. ... The movie industry is eager to use the Internet to deploy our movies, thousands of titles of every genre, to homes in this country and around the world”).

technologies that enforce them can sometimes go beyond the limited bounds of copyright law, allowing copyright holders to replace copyright rules with an automated contractual ordering. Copyright and competition law issues arising from DRM can thus be thought of as being as much about contracting practices as they are about the use of technologies.

Copyright holders have sought legal protections for their TPMs and DRM systems through amendments to copyright laws around the world. These legal protections typically make it illegal to circumvent TPMs or DRM systems and, in some countries, to make or distribute devices that circumvent them. These are commonly known as “anticircumvention” and “anti-device” provisions, respectively. Anticircumvention and anti-device provisions are a new breed of “copyright” law. The use of quotations around “copyright” here and in the title of this article is intentional. One of the concepts explored here is that anticircumvention and anti-device provisions might not be the proper subject matter of copyright, a consideration that has implications for competition law and policy. For example, there are reasons to question whether giving copyright holders the right to sue an individual who circumvents a TPM or DRM technology, as an anticircumvention law would do, fits into copyright’s “bundle of rights”. Other commentators have picked up on this theme and used the term “paracopyright” to describe the true character of anticircumvention and anti-device provisions.⁴ This issue is explored in more depth in Part III.B.

Canada’s *Copyright Act*⁵ does not currently contain anticircumvention or anti-device provisions. In June 2005, the Liberal government tabled legislation aimed at making changes to the *Copyright Act*—Bill C-60, *An Act to amend the Copyright Act*.⁶ Legal protections for TPMs and DRM systems were among the main components of the proposed law. As a result of the change in government in early 2006, Bill C-60 did not proceed past first reading and was not passed into law. The shape of possible copyright reform in Canada remains uncertain. It is widely expected, however, that anticircumvention provisions will again be proposed in Canada.

Although underexamined to date in Canada, anticircumvention and anti-device provisions, along with the DRM technologies and underlying contracting practices that they tend to protect, may spawn substantial implications and unintended consequences for Canadian competition policy, particularly for consumers and for

⁴ See e.g. David Nimmer, “Puzzles of the Digital Millennium Copyright Act” (1998-1999) 46 *Journal of the Copyright Society of the U.S.A.* 401 at 405; Jeremy F. deBeer, “Constitutional Jurisdiction Over Paracopyright Laws” in Michael Geist, ed., *In the Public Interest: The Future of Canadian Copyright Law* (Toronto: Irwin Law, 2005).

⁵ R.S.C. 1985, c. C-42.

⁶ 1st Sess., 38th Parl., 2005. Bill C-60 was based on proposals announced by the Government a few months earlier on 24 March 2005. See Industry Canada & Canadian Heritage, *Government Statement on Proposals for Copyright Reform* (24 March 2005), online: Industry Canada <<http://strategis.ic.gc.ca/epic/internet/incrp-prda.nsf/en/rp01142e.html>>.

small and medium-sized businesses.⁷ Identifying and addressing some of these potential implications and consequences is the focus of this article.

Part I of this article briefly sketches the traditional relationship between competition and copyright in Canada. Part II sets out a basic framework for analysis by describing copyright holders’ new technological controls and contracting practices, along with the possible shape of amendments to Canadian copyright law. Part III explores the new competition policy issues that may be spawned by legal protections for TPMs and DRM technologies and the contracting practices that underlie them. Finally, consistent with recent indications from the commissioner of competition that intellectual property will receive increased attention from the Competition Bureau (“Bureau”),⁸ Part IV of this article discusses concrete ways that Canada’s competition authority can ensure that Canada maintains a vibrant competition law and policy in the face of possible changes to copyright law.

I. Competition and Copyright

Competition and copyright policy exist in a close and complementary relationship. Each area of law strives to achieve similar goals while maintaining a balance among a number of competing societal interests.⁹ Since at least the early 1990s, intellectual property has been viewed as generally procompetitive in Canada and in the United States.¹⁰ The Competition Bureau sees part of its role as protecting the incentives that are established under intellectual property laws from anticompetitive conduct; such incentives are seen to contribute to the goals of

⁷ There are a number of works addressing the general relationship between intellectual property and competition law. However, there is a paucity of commentary in Canada on copyright’s implications for competition law and policy. For a good discussion in this area, see Michael Geist, “Anti-Circumvention Legislation and Competition Policy: Defining a Canadian Way?” in Geist, *supra* note 4.

⁸ See e.g. Sheridan Scott, Commissioner of Competition, Competition Bureau, “Competition Law and Intellectual Property Law: Getting the Balance ‘Just Right’” (Speech to the University of Victoria Faculty of Law International Intellectual Property Law Symposium, 15 July 2006), online: Competition Bureau <http://www.competitionbureau.gc.ca/PDFs/IPspeechjuly142006_e.pdf>; Sheridan Scott, “Competition Bureau Progress and Priorities” (Speech to the Canadian Bar Association Annual Conference on Competition Law, Hilton Lac Leamy, Gatineau, Qc., 3 November 2005) at 9-10, online: Competition Bureau <http://www.competitionbureau.gc.ca/PDFs/HandoutCBAspeechNov2-2005_e.pdf> [Scott, “Bureau Progress and Priorities”].

⁹ See generally Howard I. Wetston, Director of Investigation and Research, Consumer and Corporate Affairs Canada, “Competition Policy and Intellectual Property Rights: Complementary Framework Policies for a Market Economy” (Address to the Conference on Global Rivalry and Intellectual Property: Developing Canadian Strategies, 25 April 1990), online: Competition Bureau <<http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1083&lg=e>>.

¹⁰ For a recent example confirming the Canadian view, see Canada, Competition Bureau, “Canadian Intellectual Property Enforcement Guidelines” (Presentation before the U.S. Federal Trade Commission and U.S. Department of Justice Hearings, Washington, D.C., 22 May 2002), online: FTC <<http://www.ftc.gov/opp/intellect/020522allen.pdf>> [Competition Bureau, FTC/DOJ Presentation].

competition policy.¹¹ Thus, recognizing that “competition law may result in limitations on the terms and conditions under which the owners of IP rights may transfer or license the use of such rights to others, and on the identity of those to whom the IP is transferred or licensed ...”,¹² the Bureau has attempted to tread a cautious and clearly delineated path where competition intersects with copyright.¹³

The *Competition Act*¹⁴ contains two key provisions that relate directly to intellectual property. The first of these provisions reads as follows:

32(1) In any case where use has been made of the exclusive rights and privileges conferred by one or more patents for invention, by one or more trade-marks, by a copyright or by a registered integrated circuit topography, so as to

(a) limit unduly the facilities for transporting, producing, manufacturing, supplying, storing or dealing in any article or commodity that may be a subject of trade or commerce,

(b) restrain or injure, unduly, trade or commerce in relation to any such article or commodity,

(c) prevent, limit or lessen, unduly, the manufacture or production of any such article or commodity or unreasonably enhance the price thereof, or

(d) prevent or lessen, unduly, competition in the production, manufacture, purchase, barter, sale, transportation or supply of any such article or commodity,

the Federal Court may make one or more of the orders referred to in subsection (2) in the circumstances described in that subsection.¹⁵

¹¹ See Canada, Competition Bureau, *Intellectual Property Enforcement Guidelines* (Ottawa: Industry Canada, 2000), online: Competition Bureau <<http://strategis.ic.gc.ca/pics/ct/ipege.pdf>> [*IPEGs*] (“Competition laws may be invoked to protect these same incentives from anti-competitive conduct that creates, enhances or maintains market power or otherwise harms vigorous rivalry among firms” at 1).

¹² *Ibid.*

¹³ Courts have similarly walked a careful line at the intersection of intellectual property and competition law. Competition law has occasionally been raised as a defence to allegations of infringement of intellectual property rights. In such circumstances, courts have held that the defence *ex dolo malo non oritur actio* is available only if, in order to prove the intellectual property infringement, the plaintiff must prove that it is party to an agreement that is illegal from a competition law perspective. See e.g. *Philco Products, Ltd. v. Thermionics, Ltd.*, [1940] S.C.R. 501, 4 D.L.R. 1. Competition law has also been raised as a defence against plaintiffs seeking equitable relief in connection with intellectual property rights. See e.g. *Eli Lilly and Co. v. Marzone Chemicals Ltd.* (1976), 29 C.P.R. (2d) 253 (F.C.T.D.). For an excellent discussion of these matters, see Stanley Wong, “Competition Act Implications for the Licensing of Intellectual Property Rights: 2002 Update” (Paper presented to the program “Intellectual Property License Agreements”, Canadian Institute, Vancouver, 24-25 June 2002), on file with author.

¹⁴ R.S.C. 1985, c. C-34.

¹⁵ *Ibid.*, s. 32(1).

Orders permitted by subsection 32(2) include an order that an intellectual property licence is void and an order that the intellectual property be licensed on certain terms, subject to subsection 32(3).¹⁶

In the *Intellectual Property Enforcement Guidelines*, the Competition Bureau has made it clear that it will interpret the requirements of section 32 strictly and narrowly: “The Bureau will seek a remedy for the unilateral exercise of the IP right to exclude under section 32 only if the circumstances specified in that section are met and the alleged competitive harm stems directly from *the refusal and nothing else*.”¹⁷ Thus, section 32 permits competition challenges only where a competitive harm flows directly from the “mere exercise” of an intellectual property right. The “mere exercise” is defined in the *IPEGs* as the “exercise of the owner’s right to unilaterally exclude others from using the IP.”¹⁸ If there is “something more” than a unilateral refusal, then the remedies available under section 32 will not apply.

On top of these requirements, a second threshold must be met before section 32 will be applied.¹⁹ Gwilym Allen, a senior economic and strategic advisor at the Competition Bureau, has indicated that the Bureau will only invoke section 32 with respect to the mere exercise of an intellectual property right in the rare cases where it is clear that “the effect of issuing a remedy or issuing an order [under subsection 32(2)] would unlikely have any real adverse effect on innovation.”²⁰ The application of section 32 has been rare indeed. As of September 2007, there have been no contested cases decided under this section.

The Bureau’s restrained approach to section 32 may be due to the fact that the section is understood to be a criminal section.²¹ Although the section does not create an offence per se, the Federal Court may only issue a remedy under section 32 “on an

¹⁶ Subsection 32(3) prohibits the court from making an order that would be “at variance with any treaty, convention, arrangement or engagement” regarding intellectual property to which Canada is a party (*ibid.*).

¹⁷ *IPEGs*, *supra* note 11 at 9 [emphasis added].

¹⁸ *Ibid.* at 7.

¹⁹ For a good description regarding the two-step operation of section 32, see Calvin S. Goldman & John D. Bodrug, *Competition Law of Canada*, looseleaf (New York: Juris, 2005) at 3.05, 3.06. See also Wong, *supra* note 13.

²⁰ “Hearing on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy” (Panel participation at hearing hosted by the U.S. Department of Justice Antitrust Division and the U.S. Federal Trade Commission, Washington, D.C., 22 May 2002) at 89, online: Federal Trade Commission <<http://www.ftc.gov/opp/intellect/020522trans.pdf>> [DOJ/FTC Hearing]. See also *IPEGs*, *supra* note 11.

²¹ The authors are grateful to the Hon. William P. McKeown, Q.C. for alerting them to this aspect of section 32.

information exhibited by the Attorney General of Canada ...²² Apart from the fact that the matter must be referred to the Attorney General of Canada for prosecution,²³ it is important to note that the standard of proof in a criminal matter is “beyond a reasonable doubt.”²⁴ In matters of competition law and economics, this burden may be particularly difficult to discharge. These facts severely limit the utility of section 32 in redressing a lessening of competition produced in connection with intellectual property rights.

Not all commentators agree that section 32 is a criminal section. Stanley Wong, for example, has challenged the notion that section 32 should be read as a criminal section and that the criminal standard of proof should apply under the section.²⁵ Nevertheless, either by reason that section 32 is a criminal section with a high onus of proof, or by reason that clarity is lacking with respect to the nature or applicability of the section, the section has been of limited practical utility to date. Part IV of this article explores how changes to section 32 may be a key component in ensuring that intellectual property rights are answerable to competition law and policy in appropriate cases.

The second key provision in the *Competition Act* that relates to intellectual property is found in the “Abuse of Dominant Position” provisions under subsection 79(5), introduced in the 1986 amendments:

For the purpose of this section, an act engaged in *pursuant only* to the exercise of any right or enjoyment of any interest derived under the *Copyright Act*, *Industrial Design Act*, *Integrated Circuit Topography Act*, *Patent Act*, *Trade-marks Act* or any other Act of Parliament pertaining to intellectual or industrial property is not an anti-competitive act.²⁶

In the *IPEGs*, the Competition Bureau has confirmed the plain reading of this section: The exercise of an intellectual property right or the enjoyment of an interest derived from an intellectual property statute, without something more, is insufficient to

²² *Competition Act*, *supra* note 14, s. 32(2). The application for a special remedy brought by the Attorney General has to contain proof of undue restraint of trade or lessened competition. See *IPEGs*, *supra* note 11 at 8-9.

²³ It is also relevant that the Federal Court does not have extensive criminal law experience. See generally Ian Bushnell, *The Federal Court of Canada: A History, 1875-1992* (Toronto: University of Toronto Press, 1997). For example, although the Federal Court has concurrent jurisdiction with provincial courts to hear and determine most matters under the *Copyright Act*, *supra* note 5, section 37 of that act states that the Federal Court does not have concurrent jurisdiction when it comes to the prosecution of offences under the *Copyright Act*. For a provincial decision under the criminal offence provisions of the *Copyright Act*, see *R. v. Bonamy*, 2000 BCCA 308, 6 C.P.R. (4th) 1.

²⁴ *R. v. Lifchus*, [1997] 3 S.C.R. 320 at para. 12, 118 Man. R. (2d) 218, 150 D.L.R. (4th) 733.

²⁵ *Supra* note 13 at para. 76 (suggesting that the standard might be “substantial” proof of harm or perhaps even a “balance of probabilities”). The issue of the standard under section 32 has not been addressed by a court.

²⁶ *Supra* note 14, as am. by *An Act to establish the Competition Tribunal and to amend the Combines Investigation Act and the Bank Act and other Acts in consequence thereof*, R.S.C. 1985, c. 19 (2d Supp.), s. 45 [emphasis added].

constitute an anticompetitive act. Such acts cannot be found to be an abuse of dominant position. That said, during his term as director of investigations and research, the Honourable Howard Wetston stated that where an intellectual property right is *abused*, as opposed to *exercised*, it may run afoul of the abuse of dominance provisions in the *Competition Act*.²⁷

In the fifteen years since Wetston’s statement, the Competition Tribunal has not demonstrated a strong interest in interfering with intellectual property rights on competition law grounds. Although there have been two significant cases involving refusals to license intellectual property,²⁸ the tribunal held that no violation of the *Competition Act* had taken place in either case.

The tribunal held that a refusal to license intellectual property, even when motivated in part by competition issues, was not an anticompetitive act because it amounted to an exercise of an exclusive right under the relevant intellectual property statute. Something more than the mere exercise of a statutory right is required, even if the exercise of the right is exclusionary in effect. In the *Tele-Direct* case, the tribunal confirmed that because trademark owners have the exclusive power under the *Trade-marks Act*²⁹ to decide whom to license their marks to, a refusal to license could not be an anticompetitive act: “The respondents’ motivation for their decision to refuse to license a competitor becomes irrelevant as the *Trade-marks Act* does not prescribe any limit to the exercise of that right.”³⁰

As reflected in these decisions and in the approach of the Competition Bureau, competition law has traditionally maintained a degree of distance from intellectual property rights. This approach has been maintained in Canada at least since intellectual property came to be viewed by the Competition Bureau as a procompetitive policy instrument that is complementary to competition law in promoting an efficient economy. However, new technological controls and automated contracting practices used by copyright holders, combined with the possibility that a new breed of “copyright” law will be implemented in Canada, suggest that it is time for competition principles to play a markedly more active role in copyright law and policy.

²⁷ See Wetston, *supra* note 9.

²⁸ See *Canada (Director of Investigation and Research) v. Tele-Direct (Publications)* (1997), 73 C.P.R. (3d) 1 (Competition Tribunal) [*Tele-Direct*]; *Canada (Director of Investigation and Research) v. Warner Music Canada* (1997), 78 C.P.R. (3d) 321 (Competition Tribunal) [*Warner*]. In a more recent case, the Bureau discontinued an inquiry regarding allegedly restrictive licence terms being used by a printer manufacturer. The Bureau concluded that no tied selling had taken place and that the licensing was merely an exercise of copyright and thus not anticompetitive pursuant to subsection 79(5). See Canada, Competition Bureau, “Discontinued Cases” in *Annual Report of the Commissioner of Competition for the Year Ending March 31, 2004* at Appendix 1, online: Competition Bureau <<http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1349&lg=e>>.

²⁹ R.S.C., 1985, c. T-13.

³⁰ *Tele-Direct*, *supra* note 28 at 33.

II. Technological Controls, Contracts, and Canada's New Breed of "Copyright" Law

A. *Technological Protection Measures and Digital Rights Management*

Much has been written about TPMs and DRM.³¹ Rather than conducting a comprehensive review of the literature, this part is intended to provide a basic framework for thinking about how the use and legal protection of TPMs and DRM technology can implicate competition law and policy.

The term "technological measure"—or "TPM" as used in this article—appears to have first gained widespread use in 1996 as a result of its inclusion in the World Intellectual Property Organization ("WIPO") treaties discussed below.³² The term "TPM" is now commonly understood to refer to technologies that either control *access* to or *use* of copyright works, or both.

A TPM that controls access to a work might be as simple as a password protection. More complex access-control TPMs utilize cryptography to regulate access to a work.³³ Cryptography is used in a variety of different ways in different TPMs, often to encrypt the copyright work and to permit decryption and access to the work only to authorized users or devices.³⁴ Use-control TPMs function to control the uses that can be made of a work after a consumer is granted access to it. Although use-control TPMs might control any number of uses, the most common type is a copy-control mechanism that regulates or prevents duplication of all or part of a work. TPMs are often used in combination with one another and with other

³¹ Descriptive material in this section is derived from Alex Cameron, *Between Customers and Content: Internet Service Providers in the DRM Debate* (Master's Thesis, University of Ottawa, 2004) [unpublished]. For a detailed discussion of TPMs and DRM, see e.g. Ian Kerr, Alana Maurushat & Christian S. Tacit, "Technical Protection Measures: Part I—Trends in Technical Protection Measures and Circumvention Technologies" (2002), online: Canadian Heritage <http://www.pch.gc.ca/progs/ac-ca/progs/pda-cpb/pubs/protection/tdm_e.cfm> [Kerr, Maurushat & Tacit, "TPMs Part I"]; Ian Kerr, Alana Maurushat, & Christian S. Tacit, "Technical Protection Measures: Part II—The Legal Protection of TPMs" (2002), online: Canadian Heritage <http://www.pch.gc.ca/progs/ac-ca/progs/pda-cpb/pubs/protectionII/index_e.cfm>.

³² See *infra* notes 45 and 46 and accompanying text. Although the WIPO treaties seem to have spawned the use of the term "TPM" on a broad scale, access- and use-based technological controls were being discussed very early in the digital copyright context. See e.g. U.S., Information Infrastructure Task Force, *Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights* (Washington, D.C.: Information Infrastructure Task Force, 1995) at 177-200, online: United States Patent and Trademark Office <<http://www.uspto.gov/web/offices/com/doc/ipnii/>>.

³³ See generally Kerr, Maurushat & Tacit, "TPMs Part I", *supra* note 31.

³⁴ See *ibid.* See also Dean S. Marks & Bruce H. Turnbull, "Technical Protection Measures: The Intersection of Technology, Law and Commercial Licences" (2000) 22 Eur. I.P. Rev. 198 at 212.

component parts and information³⁵ to form part of larger, more sophisticated digital rights management systems.

In general terms, DRM is a form of persistent technological protection that travels with copyright works wherever they go, discretely managing licensed rights regarding access to and use of works.³⁶ DRM can be contained in operating systems, software, hardware, or any combination of the three.³⁷ DRM systems can also contain tracking and reporting capabilities to provide copyright holders with information regarding access to and uses of works, as well as about the habits of end users.³⁸

As a corollary to controlling access to and use of works, DRM can also be used to automate the enforcement of rights. For example, the terms of the licence may establish that although a user may be permitted to read an article once for a fee, if the user attempts to copy or quote from a portion of the article halfway through reading it, the DRM system will automatically destroy the article.

A number of DRM systems are under development and are being implemented worldwide.³⁹ Perhaps because numerous TPMs and DRM systems have been broken,⁴⁰ or because software and hardware standardization for DRM have not

³⁵ “Information” can include, for example, rights management information used by copyright holders to manage rights in association with works. See generally Kerr, Maurushat & Tacit, “TPMs Part I”, *supra* note 31.

³⁶ See e.g. Mark Stamp, “Risks of Digital Rights Management” (2002) 45:9 Communications of the ACM 120 at 120 (discussing “persistent protection” in DRM as a form of “remote control” over works after the works have been delivered to users). For a more comprehensive discussion on the same issue, see Mark Stamp, “Digital Rights Management: The Technology Behind the Hype” (19 December 2002) [unpublished], online: <<http://home.earthlink.net/~mstamp1/papers/DRMpaper.pdf>>.

³⁷ See Chris Hoofnagle, “Digital Rights Management: Many Technical Controls on Digital Content Distribution Can Create a Surveillance Society” (2003-2004) 5 Colum. Sci. & Tech. L. Rev. 3.

³⁸ The Office of the Privacy Commissioner of Canada has proactively involved itself in the copyright reform process in Canada, on the stated basis that DRM raises surveillance issues similar to those raised by “spyware”. See Letter from Jennifer Stoddart, Privacy Commissioner of Canada, to the Canadian Internet Policy and Public Interest Clinic (24 November 2004), online: Canadian Internet Policy and Public Interest Clinic <http://www.cippic.ca/en/projects-cases/copyright-law-reform/LF_Privacy_Commissioner_re_copyright_and_DRM_&_TPM_-_Nove_24_04.pdf> [Letter from Jennifer Stoddart].

³⁹ For lists of DRM organizations, systems, and component developments, see e.g. “Key DRM Projects” in *Cover Pages*, online: Cover Pages <<http://xml.coverpages.org/drm.html>>; Gordon E. Lyon, *A Quick-Reference List of Organizations and Standards for Digital Rights Management* (National Institute of Standards and Technology Special Publication 500-241) (Washington, D.C.: National Institute of Standards and Technology, 2002).

⁴⁰ See e.g. Andrew Orłowski, “iTunes DRM Cracked Wide Open for GNU/Linux. Seriously” *The Register* (5 January 2004), online: The Register <http://www.theregister.co.uk/2004/01/05/itunes_drm_cracked_wide_open/>; Evan Hansen, “Court: DeCSS Ban Violated Free Speech” *CNet News.com* (27 February 2004), online: CNet News.com <<http://news.com.com/2100-1026-5166887.html>>; “CD Crack: Magic Marker Indeed” *Wired News* (20 May 2002), online: Wired News <<http://www.wired.com/news/technology/0,1282,52665,00.html>>.

adequately developed, copyright holders have not yet widely adopted DRM.⁴¹ Some argue that DRM will *never* be successful.⁴² It remains to be seen whether such arguments will stand the test of time. Copyright holders are likely to continue chasing the promise of control through DRM so long as DRM technology improves and so long as DRM technology receives a strong backing from law, as may soon occur in Canada.⁴³

B. Canada's Proposed Implementation of the WIPO Treaties

As no technological measure can permanently resist deliberate attacks, a TPM is only as good as its legal protection.

Canadian Recording Industry Association⁴⁴

In December 1997, Canada indicated that it would sign the *WIPO Copyright Treaty*⁴⁵ and *WIPO Performances and Phonograms Treaty*⁴⁶, known collectively as the "WIPO Treaties".⁴⁷ Among other matters, these treaties require contracting countries to amend their domestic laws to include a form of protection for TPMs. Article 11 of the *WCT* provides as follows:

Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their

⁴¹ See John Borland, "Group Calls for Copy Protection Rosetta Stone" *CNet News.com* (20 July 2004), online: CNet News.com <http://news.com.com/2102-1027_3-5276867.html?tag=st.util.print>; Lyon, *supra* note 39.

⁴² See e.g. Cory Doctorow, "Microsoft Research DRM Talk" (Presentation to Microsoft employees in Redmond, Wash., 17 June 2004), online: Craphound.com <<http://craphound.com/msfdrm.txt>>; Peter Biddle *et al.*, "The Darknet and the Future of Content Distribution" [unpublished], online: Stanford University <<http://crypto.stanford.edu/DRM2002/darknet5.doc>>.

⁴³ See e.g. "Digital Rights Market to Boom, Study Says" *CNet News.com* (1 July 2004), online: CNet News.com <http://news.com.com/2102-1029_3-5254370.html?tag=st.util.print>. The Canadian government has funded the development of DRM through its Electronic Copyright Fund. See Canadian Heritage, *Electronic Copyright Fund: Program Description and Application Guidelines June 2004*, online: Canadian Heritage <http://www.canadianheritage.gc.ca/progs/pcce-ccop/pubs/electronguide_e.cfm>.

⁴⁴ "Submission of the Canadian Recording Industry Association in Respect of Consultation Paper on Digital Copyright Issues" (14 September 2001) at 17, online: Industry Canada <<http://strategis.ic.gc.ca/pics/rp/cria.pdf>> [CRIA, "Submission"].

⁴⁵ 20 December 1996, 2186 U.N.T.S. 121, WIPO Publication No. 226 (entered into force 6 March 2002) [*WCT*].

⁴⁶ 20 December 1996, 2186 U.N.T.S. 203, WIPO Publication No. 227 (entered into force 20 May 2002) [*WPPT*].

⁴⁷ See Canadian Heritage, News Release, "Canada Commits to Sign International Copyright Treaties" (18 December 1997), online: Canadian Heritage <http://www.pch.gc.ca/newsroom/index_e.cfm?fuseaction=displayDocument&DocIDC=7NR135>.

works, which are not authorized by the authors concerned or permitted by law.⁴⁸

Article 18 of the *WPPT* contains a similar requirement in connection with TPMs used by performers and producers of phonograms.⁴⁹ In addition, Article 12 of the *WCT* prohibits the removal of rights management information (“RMI”) from works and the trafficking in works knowing that RMI has been removed.⁵⁰

Fuelled by pressure to ratify the WIPO Treaties, there is a growing global body of law designed to protect TPMs.⁵¹ A number of countries around the world have ratified the WIPO Treaties, though their approaches have differed.⁵² The most widely known example is the United States’ *Digital Millennium Copyright Act of 1998*.⁵³

In general terms, the *DMCA* makes it illegal to circumvent TPMs that effectively control access to copyright works,⁵⁴ to remove or alter RMI attached to works,⁵⁵ and to make, sell, or otherwise provide any technology primarily intended to circumvent TPMs.⁵⁶ The *DMCA* represents a strong approach to implementation of the WIPO Treaties because it includes not only anticircumvention provisions, but also anti-device provisions. The *DMCA* provides broad blanket protection for TPMs and includes criminal provisions. Further, the *DMCA* has been interpreted to prohibit circumvention irrespective of whether a copyright infringement takes place in relation to the underlying copyright work: “[T]he *DMCA* targets the *circumvention* of digital walls guarding copyrighted material (and trafficking in circumvention tools), but does not concern itself with the

⁴⁸ *Supra* note 45.

⁴⁹ *Supra* note 46.

⁵⁰ RMI is defined as “information which identifies the work, the author of the work, the owner of any right in the work, or information about the terms and conditions of use of the work, and any numbers or codes that represent such information, when any of these items of information is attached to a copy of a work or appears in connection with the communication of a work to the public” (*WCT*, *supra* note 45, art. 12). See also *WPPT*, *supra* note 46, art. 19.

⁵¹ As of August 2007, sixty-four states had signed the *WCT* and sixty-two states had signed the *WPPT*. See “WIPO-Administered Treaties”, online: World Intellectual Property Organization <<http://www.wipo.int/treaties/en/>>.

⁵² For review and analysis of the *DMCA*, *infra* note 53, the WIPO Treaties that led to the *DMCA*, and examples of other similar laws, see Geist, “Anti-Circumvention Legislation and Competition Policy: Defining a Canadian Way”, *supra* note 7; Mihály Ficsor, *The Law of Copyright and the Internet: The 1996 WIPO Treaties, Their Interpretation and Implementation* (New York: Oxford University Press, 2002); Jacques de Werra, “The Legal System of Technological Protection Measures Under the WIPO Treaties, the Digital Millennium Copyright Act, the European Union Directives and other National Laws (Japan, Australia)” (Paper presented to the Association littéraire et artistique internationale, Congress: Adjuncts and Alternatives to Copyright, June 2001), online: ALAI <http://www.alai-usa.org/2001_conference/Reports/dewerra.doc>; Pamela Samuelson, “Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised” (1999) 14 *Berkeley Tech. L.J.* 519.

⁵³ 17 U.S.C. § 1201 [*DMCA*].

⁵⁴ *Ibid.* § 1201(a)(1)(A).

⁵⁵ *Ibid.* § 1202.

⁵⁶ *Ibid.* §§ 1201(a)(2), 1201(b).

use of those materials after circumvention has occurred.”⁵⁷ Attempts at writing fair use into the *DMCA* have met with opposition from lawmakers in the United States.⁵⁸

Canada’s intentions regarding the WIPO Treaties have been in doubt for some time. However, in response to a 2004 Heritage Committee Report—commonly known as the “Bulte Report”—which called for the “immediate” ratification of the WIPO Treaties,⁵⁹ Canada’s former government announced in March 2005 that it intended to make a number of additions and amendments to the *Copyright Act* to “implement” the WIPO Treaties.⁶⁰ The official shape of the proposals was revealed in June 2005 with the tabling of Bill C-60.⁶¹ Bill C-60 contained three subsections that dealt with circumvention of TPMs. Bill C-60 did not appear to target devices, at least not in the same way as the *DMCA* and other laws do.

With respect to the circumvention of TPMs, Bill C-60 would have added subsection 34.02(1) to the *Copyright Act*, creating a general prohibition against circumvention, where the circumvention was done “for the purpose of the act that is an infringement of the copyright in [the work] or the moral rights in respect of [the work] ... ”⁶² At first glance, this section seems narrower than the *DMCA*, which prohibits circumvention per se irrespective of whether the underlying work is infringed or is intended to be infringed. However, it is important to note that Bill C-60 did not require that an infringement actually take place before infringement-by-circumvention could be found. In other words, the link between copyright infringement and circumvention was loose, requiring a determination of the purpose for which the circumvention was undertaken.

⁵⁷ *Universal City Studios v. Corley*, 273 F.3d 429 at 443 (2d Cir. N.Y. 2001) [*Corley*] [emphasis in original].

⁵⁸ See Anne Broache, “Politicos Wary of Changes to Copyright Law” *CNet News.com* (16 November 2005), online: CNet News.com <http://news.com.com/Politicos+wary+of+changes+to+copyright+law/2100-1030_3-5956328.html?tag=html.alert>.

⁵⁹ Standing Committee on Canadian Heritage, *Interim Report on Copyright Reform: Report of the Standing Committee on Canadian Heritage* (Ottawa: Standing Committee on Canadian Heritage, 2004) (Chair: Sarmite D. Bulte) at 21, online: The Parliament of Canada <<http://cmte.parl.gc.ca/Content/HOC/committee/373/heri/reports/rp1350628/herirp01/herirp01-e.pdf>>. This report was re-adopted by the Canadian Heritage Committee in November 2004. See House of Commons, Standing Committee on Canadian Heritage, *Minutes of Proceedings*, 38th Parl., 1st sess. (3 November 2004), online: The Parliament of Canada <<http://cmte.parl.gc.ca/cmte/committeepublication.aspx?sourceid=88973>>.

⁶⁰ Industry Canada, “Frequently Asked Questions” (24 March 2005), online: Industry Canada <<http://strategis.ic.gc.ca/epic/internet/incrp-prda.nsf/en/rp01143e.html>>. The former government was careful to indicate that it wanted to be in a position to “implement” the treaties, but it did not state that it had decided to formally ratify them. Implementing the treaties would mean that Canada would not be legally bound to the treaties even though its amended domestic copyright law would likely fulfill the standards enshrined in the treaties.

⁶¹ *Supra* note 6.

⁶² *Ibid.*, cl. 27.

The same clause of Bill C-60 would have also added subsection 34.02(2) to the *Copyright Act*, prohibiting the provision of a service to circumvent, remove, or render ineffective a TPM. The precise meaning of this section was unclear. It could have had fairly limited application in practice given the requirement that the service provider “know[] or ought to know”⁶³ that providing the service would result in an infringement of copyright. Yet, it is also possible that the subsection could have been interpreted much more broadly to be a kind of anti-device provision.

It is important to note that the Canadian Recording Industry Association (“CRIA”) has demanded that anti-device provisions be included in Canadian copyright reform and is expected to continue to press for them.⁶⁴ The CRIA has already lobbied for device-based protections in the satellite radio context as follows:

[E]ach service must ensure that each digital receiver is self-contained, with no digital output. If the receiver has a digital output, the device must employ the appropriate digital rights management system to prevent any redistribution.⁶⁵

In this instance, rather than lobbying for legal protections that protect against the manufacture of devices that circumvent TPMs, the CRIA sought government-mandated technological design aimed at precluding the possibility of unauthorized use of copyright works. On the issue of anti-device provisions, the U.S. trade representative has encouraged Canada to protect TPMs “by outlawing trafficking in devices to circumvent technological protection measures ...”⁶⁶ Because of the possibility that anti-device provisions may yet be proposed in Canada, this article will consider the important competition policy implications of these kinds of provisions.

Rounding out the anticircumvention provisions that were proposed in Bill C-60, subsection 34.02(3) would have been added to the *Copyright Act* to give copyright owners a cause of action against those who deal with works in certain ways (e.g., who sell or rent out the work) when they know or ought to know that a TPM has been removed or rendered ineffective. Importantly, this section would have applied even where the TPM was removed or rendered ineffective in a completely legal manner, including methods not in contravention of the anticircumvention provision contained in subsection 34.02(1).

⁶³ *Ibid.*

⁶⁴ See CRIA, “Submission”, *supra* note 44. See also Graham Henderson, President, CRIA, “A National Dialogue on the Need to Safeguard and Promote Products of the Mind” (Speech to the National Press Club, Ottawa, 29 September 2005), online: CRIA <http://www.cria.ca/news/290905_n.php>.

⁶⁵ Graham Henderson, President, CRIA, “Various Broadcast Applications” (Transcript of proceedings before the Canadian Radio-television and Tele-communication Commission, Gatineau, Qc., 4 November 2004), online: CRTC <<http://www.crtc.gc.ca/ENG/transcripts/2004/tb1104.htm>> [CRIA Satellite Submissions].

⁶⁶ Office of the U.S. Trade Representative, *2005 Special 301 Report* (29 April 2005) at 38, online: Office of the U.S. Trade Representative <http://www.ustr.gov/assets/Document_Library/Reports_Publications/2005/2005_Special_301/asset_upload_file195_7636.pdf>.

As mentioned at the outset of this article, Bill C-60 was not passed into law because Canada held an election in early 2006. Although the shape of possible future reform is unknown at this time, the provisions of Bill C-60 provide a useful frame of reference.

C. Motivations for Digital Rights Management and Anticircumvention Laws

Preventing copyright infringement is a key premise invoked in support of anticircumvention provisions. This is the premise that has typically been used by copyright industries to justify their use of DRM and to press for legal architectures that protect DRM. As a starting point, some copyright holders have expressed the view that they are unwilling to make content available in digital form (particularly online) without having technological and legal means in place to prevent infringement.⁶⁷ From this perspective, DRM and anticircumvention laws can be viewed in a positive light insofar as they will result in a greater amount of content being disseminated to the public in creative and innovative ways.

Promoting authorized use of copyright materials is certainly one motivation for DRM. However, some copyright holders are interested in DRM for reasons that go beyond infringement. For example, some copyright holders and other intermediaries in the copyright chain want to use DRM to deliver content because DRM allows them to unbundle the myriad possible uses of copyright works and to develop new licence-based business models to exploit the vast number of discrete uses of works.

Exploring this point from the consumer perspective, it is important to acknowledge that DRM can be used in ways that address criticisms traditionally directed against, for example, the recording industry. A common criticism of the traditional recording industry model is that consumers are forced in most cases to purchase an entire album when in fact they may have wished to purchase only one or two songs. As demonstrated by Apple's iTunes Music Store and other online music services, one of the business models that DRM helps to enable is a model whereby consumers can purchase what they really want (e.g., one song) rather than having no choice but to purchase a whole album.

⁶⁷ See e.g. U.K., All Party Parliamentary Internet Group, "Digital Rights Management: Report of an Inquiry by the All Party Internet Group" (June 2006), online: All Party Internet Group <<http://www.apcomms.org.uk/apig>> [APIG, "DRM Report"]. According to the report:

The Internet is inevitably going to radically alter all current content distribution models; but DRM has the potential to speed up this process because many content owners are unwilling to provide content in an innovative manner unless they can prevent unauthorised copying. PACT put it another way, telling us that the movie business analysis is that in order to beat "piracy" they must ensure that legal versions are available, and they consider TPM essential for this (*ibid.* at para. 23).

From the perspective of the copyright owner, DRM-enabled control over every access to and use of a work means that the licensing opportunities for content are virtually infinite. No longer will copyright vendors sell a tangible product to end-users; instead, vendors will license discrete rights to access or use content, especially digital content, delivered online. In essence, this is a transformation from a tangible-goods market into a licensing market where individuals no longer purchase an object in which they have classic property rights, like a book, a DVD, or a compact disc. Rather, they purchase, via technologically perfected standard-form licences, discrete rights to access and/or use content in specific ways.

DRM can thus be principally understood as a contract enabler. DRM allows copyright holders or other intermediaries who deliver copyright content to effectively rewrite copyright law in their own terms with a scope and efficiency unavailable to them in the analogue world. Copyright law itself contains no limit on the ability to contract⁶⁸ and certainly no limit on the ability to perfect contracts through technological controls. By virtue of the fact that DRM operates to create, manage, perform, and enforce contracts with each user, copyright owners that use DRM are no longer bound by the limits of copyright law—they can efficiently contract around it. Indeed, information protected by DRM need not be copyrightable at all and, unlike a work subject to copyright for a limited term, DRM-protected works can be protected indefinitely.⁶⁹

Instead of having to engage inefficient legal mechanisms that may be limited by geographic jurisdiction and the balanced⁷⁰ bounds of copyright law, copyright holders can write and technologically enforce their own rules. Unlike the rules in the *Copyright Act*—which, ironically, have been used as the basic justification for the use and legal protection of DRM—rules expressed in contract and in DRM code do not necessarily reflect the interests of individuals or the public at large, the long term interests of society as a whole, or any other limitation inherent in copyright.⁷¹

It is perhaps not surprising, then, that there is evidence, as discussed in Parts III.C through III.E, that DRM, the contracting practices that they enable, and anticircumvention laws that protect them can sometimes be used in potentially

⁶⁸ The Competition Tribunal has recognized this power: “The *Copyright Act* is similar to the *Trade-Marks Act*, R.S.C. 1985, c. T-13, in that it allows the trade-mark owner to refuse to license and it places no limit on the sole and exclusive right to license” (*Warner*, *supra* note 28 at 333).

⁶⁹ See e.g. Dan L. Burk & Julie Cohen, “Fair Use Infrastructure for Rights Management Systems” (2001) 15 *Harv. J.L. & Tech.* 41.

⁷⁰ The Supreme Court of Canada has made it clear that the purpose of copyright is a balance. See e.g. *Law Society of Upper Canada v. CCH Canadian*, 2004 SCC 13, [2004] 1 S.C.R. 339, 236 D.L.R. (4th) 395 [CCH], McLachlin C.J. (“in *Théberge* ... this Court stated that the purpose of copyright law was to balance the public interest in promoting the encouragement and dissemination of works of the arts and intellect and obtaining a just reward for the creator” at para. 23).

⁷¹ Among other differences between contract-enabling DRM and copyright law, works protected by DRM and contract need not respect the limited term of copyright, and in fact need not be protecting copyright works at all.

anticompetitive ways. DRM technology and contracting practices create new competition policy issues, especially when combined with the legal backing of anticircumvention laws.

III. New Competition Law and Policy Issues

A. Bigger and Stronger Intellectual Property

Canada's proposed copyright amendments in Bill C-60 represented a substantial addition and expansion of rights for copyright holders, not only in relation to the anticircumvention provisions but in other respects as well. For example, Bill C-60 would have added a "ma[king] available"⁷² right, additional rights for performers,⁷³ and additional rights for photographers.⁷⁴

Such an expansion of copyright, and particularly the increased control that copyright holders could exercise through legally protected DRM, poses an internal tension for copyright policy itself. Some copyright industries argue that they need stronger copyright laws, including anticircumvention laws, in order to stimulate certain kinds of investment and innovation in the digital environment.⁷⁵ Copyright law certainly does appear to play an important role in stimulating innovation and investment in innovation.⁷⁶ It is generally acknowledged by all copyright stakeholders, however, that there is a point at which an overbroad copyright law would exceed an optimal level of protection, thereby stifling innovation and reducing

⁷² Bill C-60, *supra* note 6, cls. 2, 8(1), 10.

⁷³ *Ibid.*, cls. 9, 15, 16, 17.

⁷⁴ For more discussion of photography issues in copyright reform, see Alex Cameron, "Lights, Camera, ... Harmonize: Photography issues in copyright reform" in Geist, *supra* note 4.

⁷⁵ See Canadian Recording Industry Association, Press Release, "Music Industry Welcomes Federal Government Commitment to Copyright Revisions" (24 March 2005), online: CRIA <http://www.cria.ca/news/240305_n.php>.

⁷⁶ Analysis of this issue is beyond the scope of this article. However, it is important to note that there are those who argue that intellectual property laws may actually have little to do with many kinds of creative innovation. See generally Ove Granstrand, "Innovation and Intellectual Property Rights" in Jan Fagerberg, David C. Mowery & Richard R. Nelson, eds., *Oxford Handbook of Innovation* (Oxford: Oxford University Press, 2005) at 266-90; Peter S. Menell & Suzanne Scotchmer, "Intellectual Property" (UC Berkeley Public Law Research Paper No. 741724), online: Social Science Research Network <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=741424>; P.A. David, "Intellectual Property Institutions and the Panda's Thumb: Patents, Copyrights, and Trade Secrets in Economic Theory and History" in M.B. Wallerstein, M.E. Mogee, & R.A. Schoen, eds., *Global Dimensions of Intellectual Property Rights in Science and Technology* (Washington, D.C.: National Academy Press, 1993) at 19-61; Nancy Gallini and Suzanne Scotchmer, "Intellectual Property: When Is It the Best Incentive System?" (Economics Department, UC Berkeley, Working Paper E01-303), online: California Digital Library <<http://repositories.cdlib.org/iber/econ/E01-303>>; Martin Kretschmer, "Artists' Earnings and Copyright: A Review of British and German Music Industry Data in the Context of Digital Technologies", online: (2005) 10:1 First Monday 1 <http://firstmonday.org/issues/issue10_1/kretschmer/index.html>.

or eliminating the benefit the public receives from it. Copyright stakeholders typically disagree on the level of protection that achieves the optimal balance.

This tension inherent in the creation and exercise of stronger intellectual property rights was recently touched on by Justice Binnie of the Supreme Court of Canada. He pointed out that the exercise of excessive control pursuant to intellectual property rights may undermine some of the very objectives of those rights: “Excessive control by holders of copyrights and other forms of intellectual property may unduly limit the ability of the public domain to incorporate and embellish creative innovation in the long-term interests of society as a whole, or create practical obstacles to proper utilization.”⁷⁷ Although these remarks are made in the context of “balance” in copyright law, they are directly relevant to competition policy as well.⁷⁸ The basic point is that, as a general principle, the vesting of increased control and power with copyright holders through DRM technology, contract, and anticircumvention law is a phenomenon that might *in itself* suggest that Canada’s competition policy needs reassessing.⁷⁹

Although it need not be so, anticircumvention and anti-device laws can have negative impacts on consumers and result in anticompetitive effects in markets for the licensing of intellectual property rights, processes incorporating such rights, and products and services incorporating such rights. Examples of such effects can be gleaned from the U.S. experience under the *DMCA* as discussed below in Parts III.C through III.E. Before discussing some specific examples, however, a few words are in order regarding the general competition implications of DRM technology and contracting practices backed by law.

First, the use of legally protected DRM may impose additional costs on consumers in connection with activities that are lawful under copyright law. Some access to and uses of copyright works that traditionally have not involved any cost for consumers may become subject to a technologically enforced licensing system that will extract additional benefit for copyright holders at a direct cost to consumers. This is not to suggest that such metering is illegitimate *per se* or undesirable from a copyright or competition policy perspective, but rather that it may raise copyright and competition issues as discussed in the final paragraphs of this section.

⁷⁷ *Théberge v. Galerie d’Art du Petit Champlain*, 2002 SCC 34, [2002] 2 S.C.R. 336 at para. 32, 210 D.L.R. (4th) 385 [*Théberge*]. See also *CCH*, *supra* note 70 at paras. 41-42.

⁷⁸ In fact, the point made by Binnie J. has been expressed in similar terms by representatives of the Competition Bureau. Gwilym Allen, a senior economic and strategic advisor at the Bureau, has said that “the architecture of the law can change such that the objectives in the intellectual property are actually being undermined by their very use. And as a marker that that may be happening would be the effects on competition” (DOJ/FTC Hearing, *supra* note 20 at 141-42). This statement from the Bureau is discussed further in Part IV.D, below.

⁷⁹ Such a shift may require the Bureau to approach mere exercises of intellectual property rights with greater scrutiny, or more generally to revise its deferential approach toward the exercise of intellectual property rights.

Further, even when consumers are legally entitled to circumvent DRM in order to access works, to exercise fair use rights, and to engage in other noninfringing activities, as a practical matter they may often not be able to engage in such circumvention. DRM systems are neither designed to be circumvented nor are they designed to permit noninfringing access to and use of works. Increasingly, consumers may find themselves unable to circumvent DRM unless they invest significant time and resources in determining *how* to circumvent.⁸⁰ This cost is on top of the cost of the increased *legal risk* that consumers will face in gaining access to and making noninfringing use of DRM-protected works. This potential cost for consumers could be increased by another degree through licence provisions that could contractually prohibit circumvention for any reason, even if the circumvention would be permissible under copyright law.

Thus, in addition to the potential direct cost of individuals having to pay for traditionally free accesses and uses, the use of legally protected DRM may impose two more general costs on consumers and society at large. The first is a specific cost of engaging in legitimate noninfringing access to and use of copyright works arising from (a) the need to figure out how to circumvent, and (b) the increased legal (i.e., anticircumvention and contract-based) risks for consumers. The second is a more general cost in connection with reduced access, use, and dissemination of copyright works: creators and others may be reluctant or unable to incur the cost of circumvention, and this may potentially lead to less innovation. In other words, the use of DRM may harm innovation by reducing access to copyrighted works, an element necessary for the process of building new innovation.⁸¹ This second cost is effectively the result of DRM and contract shutting out access to, and noninfringing uses of, the underlying copyright work.

⁸⁰ See APIG, “DRM Report”, *supra* note 67, which states:

[T]he current generation of TPMs are far from secure against determined attackers who intend to copy the material at a commercial scale (so-called “pirating”). However, where TPM systems have been implemented in hardware – rather than software – they have proved significantly harder to overcome. It has also been rather simpler for rights holders to disrupt the marketing and distribution of hardware adapters (‘mod chips’) than of software modifications (‘hacks’).

...

In the future it must be expected that TPMs will rely more and more upon specialist hardware functionality – and that some systems will prove to be extremely complex to overcome and to develop generic evasion technology for. It would therefore be unwise to base public policy upon a continuation of the situation that TPMs are relatively easy to overcome. It may well be that propping up technical measures with legislation will become entirely irrelevant. Equally, assuming that egregious problems caused by TPMs can be addressed by just ‘breaking into the system’ may become unrealistic (*ibid.* at paras. 18, 21).

⁸¹ This is fundamentally the point made by Binnie J. in *Théberge*, *supra* note 77.

In some cases, consumers, businesses,⁸² and society at large may bear indirect costs and harms because DRM can sometimes weaken the security of computer systems, exposing them to greater risk of, *inter alia*, harmful computer viruses.⁸³ This harm can also raise national security issues. In late 2005, the U.S. Computer Emergency Readiness Team, a division of the Department of Homeland Security, issued an unequivocal public warning in connection with copyright industries’ use of DRM: “Do not install software from sources that you do not expect to contain software, such as an audio CD.”⁸⁴ It is somewhat ironic that this statement comes from a government department of the country that has provided among the strongest legal protections for DRM.

The costs identified above call attention to the potential effects of DRM and anticircumvention laws from a copyright and competition policy perspective. On a micro scale, they can result in economic inefficiencies and shift a disproportionate share of total innovation benefits from individuals and the public to copyright owners, simultaneously increasing the cost of obtaining access to the fruits of innovation. On a macro scale and over the longer term, innovation may suffer given the resulting decrease in practically and efficiently accessible and utilizable innovation upon which further innovation can be built.⁸⁵

Increased breadth and scope of intellectual property-based controls in the market may raise competition issues that should be addressed through competition and copyright policy reform and through the application of competition law in intellectual property cases—the Competition Bureau should not fetter its role and responsibility by taking a narrow approach to sections 32⁸⁶ or 79, let alone the general provisions of the *Competition Act* that might apply in a given case. At the very least, copyright holders’ ability to exercise a much greater degree of technology- and contract-based control over works may be a signal that competition considerations need to play a more prominent role in the *formulation* of copyright policy. On this point, it is important to note that the Competition Bureau has given an indication that it does not feel it is appropriate to use enforcement mechanisms in order to address overbreadth

⁸² See e.g. Ingrid Marson & Graeme Wearden, “Sony ‘Rootkit’ Prompts Office Clampdown on CD Use” *CNet News.com* (14 November 2005), online: CNet News.com <http://news.com.com/Sony+rootkit+prompts+office+clampdown+on+CD+use/2100-7355_3-5951177.html>.

⁸³ See e.g. Joris Evers, “Microsoft Will Wipe Sony’s ‘Rootkit’” *CNet News.com* (13 November 2005), online: CNet News.com <http://news.com.com/2100-1002_3-5949041.html>.

⁸⁴ U.S., Computer Emergency Readiness Team, *First 4 Internet XCP (Sony DRM) Vulnerabilities* (18 November 2005), online: U.S. Computer Emergency Readiness Team <<http://www.us-cert.gov/current/archive/2005/11/21/archive.html#xcpdrml>>.

⁸⁵ See *Théberge*, *supra* note 77 at para. 32, Binnie J.

⁸⁶ It is openly acknowledged that, without legislative reform to section 32, the Bureau may be limited in its ability to modify its approach to the section if the section is considered to be criminal in nature. The possibility of law reform in this area is discussed in Part IV, below.

in intellectual property rights but that it can use advocacy to influence legislative change.⁸⁷

B. Exercising the Exclusive Right to Circumvent?

As noted at the outset of this article, anticircumvention and anti-device provisions may be viewed as a new breed of “copyright” law. The problems caused by their novel character are evident when one attempts to transpose them onto the notion of a “bundle of rights” of copyright and onto the wording of the *Competition Act*. The creation, implementation, and application of these new provisions, which are unlike any previous form of intellectual property rights, demands scrutiny on competition grounds.

Copyright is traditionally understood as a statutorily defined bundle of time-limited exclusive rights granted to copyright holders. In Canada, this is established in section 3 of the *Copyright Act*: “[C]opyright”, in relation to a work, means the sole right to produce or reproduce the work or any substantial part thereof in any material form whatever ...⁸⁸ An infringement of copyright takes place when someone exercises one or more of the copyright holder’s bundle of exclusive rights without their permission. This is true in the United States as it is in Canada:

It is important to understand precisely what reward is offered by the IP laws. Each type of IP right provides “exclusivity” for its owner. What does this exclusivity mean? It does not mean a right to commercialize any invention or creation. ... Instead, what IP rights provide is the right to exclude others. The right to exclude is not simply one of the rights provided by intellectual property, it is the fundamental right, the foundation upon which the entire IP system is built.⁸⁹

Anticircumvention and anti-device provisions do not fit this paradigm of a bundle of exclusive rights. It is easy to understand that copyright owners have the exclusive right to copy their work and that their exclusive right is infringed when someone else copies the work without their permission. It is something else, however, to conceptualize copyright holders as having the exclusive right to circumvent TPMs that they apply to their works, or the exclusive right to make and distribute devices that enable or facilitate circumvention of TPMs.⁹⁰ Even if these problems could be overcome, attempting to force anticircumvention and anti-device provisions to fit the

⁸⁷ See DOJ/FTC Hearing, *supra* note 20 at 140-41.

⁸⁸ *Supra* note 5, s. 3(1).

⁸⁹ R. Hewitt Pate, “Competition and Intellectual Property in the U.S.: Licensing Freedom and the Limits of Antitrust” (Speech at the 2005 E.U. Competition Workshop, Florence, Italy, 3 June 2005) at 3, online: U.S. Department of Justice <<http://www.usdoj.gov/atr/public/speeches/209359.pdf>>.

⁹⁰ Ironically, copyright holders have effectively strived to achieve something tantamount to this “exclusive right” with respect to devices because they have attempted to have legislators dictate to technology companies what functionality their devices must and must not include. See discussion in Part IV.D, below.

mould of a bundle-of-rights paradigm seems to necessitate adding a number of related rights to the bundle, including the exclusive right to apply a TPM to a copyright work.⁹¹

This problem also manifests itself under the *Competition Act* because subsections 32(2) and 79(5) refer, respectively, to “the exclusive rights and privileges conferred”⁹² and “the exercise of any right or enjoyment of any interest derived ...”⁹³ If anticircumvention and anti-device provisions do not fit with the bundle-of-rights paradigm under the *Copyright Act*, then subsection 32(2) of the *Competition Act* might not apply to practices involving anticircumvention and anti-device provisions. The same may be true of contractual or technological practices that fall outside, or go beyond, the limited bounds of copyright law. In other words, it is not at all clear that the use of DRM and contracting practices under such provisions would amount to a unilateral *exercise* of an intellectual property *right* to exclude.⁹⁴ If using DRM, contracting beyond copyright, or suing on the anticircumvention provision does not amount to the exercise of an exclusive right under the *Copyright Act*, then section 79 of the *Competition Act* would apply to the conduct.

The use of DRM, contracts, and anticircumvention laws to exclude *fair dealing* with copyright works underscores the points raised in the foregoing paragraphs.⁹⁵ Fair dealing activities fall outside the copyright owner’s power to control and license under copyright law. The *Copyright Act* permits various types of fair dealing as defences to what would otherwise be an infringement of an owner’s exclusive right under copyright.⁹⁶ Although copyright places no limit on a copyright owner’s ability to contract, it is unclear whether copyright could or should be interpreted to permit copyright owners to use DRM and contract to exclude all fair dealing. This important issue is far from settled in copyright and is beyond the scope of this article.⁹⁷ However, there is an argument that such exclusion is not permissible in copyright given that fair dealing can be understood as an integral component of balance in copyright (and given that fair dealing has recently been elevated to a user *right* by the

⁹¹ The difficulty in mapping anticircumvention onto copyright seems to reinforce the idea that anticircumvention is not the proper subject of copyright, potentially raising constitutional problems for its inclusion in the *Copyright Act*, *supra* note 5 in Canada. See generally deBeer, *supra* note 4.

⁹² *Supra* note 14, s. 32(2).

⁹³ *Ibid.*, s. 79(5).

⁹⁴ That said, there may be an argument that such practices would fall under the “interest derived” portion of section 79, that DRM is really a part of exercising a right of exclusion, or that the right to sue for illegal circumvention is the exercise of an “exclusive right” under the *Copyright Act*, *supra* note 5.

⁹⁵ The exclusion of access to works may also underscore these points.

⁹⁶ *Supra* note 5, ss. 29-32.2.

⁹⁷ For a discussion of the interplay between copyright and contract, see Lucie M.C.R. Guibault, *Copyright Limitations and Contracts: An Analysis of the Contractual Overridability of Limitations on Copyright* (London: Kluwer Law International, 2002).

Supreme Court of Canada).⁹⁸ Fair dealing and access to creative works can also be understood as essential for creators to build new innovation based on existing works and as an essential component of recognizing the public interest in copyright.⁹⁹ Put another way, if every copyright work came with a contract that excluded all fair dealing—something that would be tantamount to simply removing fair dealing from the *Copyright Act* altogether—then the balance struck by the *Copyright Act* would seem to unfairly tilt toward the short-term interests of copyright holders and away from the short- and long-term interests of individual end users and society at large.

Whether or not copyright owners should be able to block the public out of fair dealing through technology or contract remains an unsettled issue in copyright law. However, this issue has important implications from a competition perspective because excluding fair dealing raises competition law and policy issues. Excluding fair dealing is arguably something more than a mere exercise of an intellectual property right and, as such, it might be regulated on competition grounds.

Thus, the character of anticircumvention and anti-device provisions may create uncertainty in the application of the *Competition Act*. However, in considering what scope the current act could have in relation to some of the DRM competition issues discussed in this article, it is important to note that the interpretation suggested above could leave a wide scope for competition-based regulation of the use of DRM, contracts, and anticircumvention provisions. As something more than a mere exercise of an intellectual property right, DRM-related technology and contracting practices, including practices based on anticircumvention or anti-device provisions (should they become law in Canada), would fall to be regulated under the general provisions of the *Competition Act*, including under subsection 79(5).¹⁰⁰

C. Tied Selling, Abuses, and Anticompetitive Practices

Competition is linked to innovation and sustained economic growth.¹⁰¹ This link is particularly strong in technologically advanced sectors where innovation is seen as

⁹⁸ In *CCH*, *supra* note 70, the Supreme Court of Canada adopted Professor Vaver's views that "[u]ser rights are not just loopholes. Both owner rights and user rights should therefore be given the fair and balanced reading that befits remedial legislation" (David Vaver, *Copyright Law* (Toronto: Irwin Law, 2000) at 171, cited in *CCH*, *supra* note 70 at para. 48).

⁹⁹ See e.g. *CCH Canadian Ltd. v. Law Society of Upper Canada*, 2002 FCA 187, [2002] 4 F.C. 213 at para. 126, 212 D.L.R. (4th) 385.

¹⁰⁰ For a helpful chart explaining the difference between the application of the general provisions and the application of section 32, see Competition Bureau, FTC/DOJ Presentation, *supra* note 10 at slide 24.

¹⁰¹ See Ramon Marimon & Vincenzo Quadrini, "Competition, Innovation and Growth with Limited Commitment" (10 October 2006) [unpublished], online: European University Institute <<http://www.eui.eu/ECO/ResearchActivities/ResearchWorkshops/Papers200607-1/Marimon.pdf>>; Michael E. Porter, *The Competitive Advantage of Nations* (London: Macmillan Press, 1990); Phillipe Aghion & Peter Howitt, *Endogenous Growth Theory* (Cambridge, Mass.: MIT Press, 1998); Mark Lorell, *The*

a way to escape competition.¹⁰² The inverse is also true: new innovations fuel competition by providing alternatives for existing products and services. As a basic proposition, DRM technology can make innovating more difficult, particularly under the potentially innovation-stifling cloud of anticircumvention laws.

DRM technology can make innovating difficult by controlling access to and use of innovative products, including those that may contain little or no copyright portions. Circumventing these controls can be cumbersome, discouraging research and innovation. An even greater competition problem arises when circumvention of DRM is prohibited by law. Even when an anticircumvention law provides an exception for reverse engineering for interoperability, as the *DMCA* does in a limited form,¹⁰³ researchers and innovators are unlikely to engage in their work on a “best guess” as to whether a court would find them to fit within the exception. The U.S. experience suggests that this combination of technology and law can have adverse effects on product and innovation markets.¹⁰⁴ DRM technology and the *DMCA* are powerful weapons that can be used to prevent competition through a combination of tied selling and legal threats.¹⁰⁵

As reflected in the examples and cases discussed in the following paragraphs, the adverse effects of DRM and anticircumvention laws on innovation may be most likely to arise in cases of products that are more “functional” but that are nevertheless protected by copyright, such as computer software. As demonstrated by the Apple iTunes example discussed below,¹⁰⁶ however, potentially adverse effects on innovation can also arise in cases where the works protected by DRM are more creative than functional, such as with musical works.

Tied selling arises when a vendor supplies a product on condition that the purchaser acquires another product or on condition that the purchaser refrains from using or distributing another product.¹⁰⁷ This practice often arises as a result of express contractual terms and, when it does, it can be easy to spot and prosecute.¹⁰⁸

U.S. Combat Aircraft Industry, 1909–2000: Structure, Competition, Innovation (Arlington: Rand, 2003).

¹⁰² See Philippe Aghion *et al.*, “Firm Entry, Innovation and Growth: Theory and Micro Evidence” (20 August 2004) [unpublished], online: Harvard University <http://post.economics.harvard.edu/faculty/aghion/papers/firm_entry_and_growth.pdf>.

¹⁰³ *Supra* note 53 §1201(f)(1).

¹⁰⁴ The U.S. experience is discussed below in this section.

¹⁰⁵ See generally Chris Sprigman, “Copyright Versus Consumers’ Rights: How Companies are Using the Digital Millennium Copyright Act to Thwart Competition” in *FindLaw’s Legal Commentary*, online: FindLaw <http://writ.news.findlaw.com/commentary/20030325_sprigman.html>.

¹⁰⁶ See “Apples Are Not the Only Fruit”, *infra* note 127 and accompanying text.

¹⁰⁷ See *Competition Act*, *supra* note 14, s. 77(1).

¹⁰⁸ This is demonstrated by the Digital Equipment Canada (“DEC”) case where DEC used integrated service policies to tie service to the sale of its products. See Goldman & Bodrug, *supra* note 19 at Appendix F8.1 (“Digital Equipment—Competition Bureau News Release”), Appendix F8.2 (“Digital Equipment—Undertaking”); George N. Addy, Director of Investigation and Research,

However, the Competition Tribunal has ruled that coercion for the purpose of tied selling does not have to be expressed contractually—it may include economic conditions that effectively preclude a consumer's choice.¹⁰⁹ This broad interpretation of tied selling allows for treating technology and its dominant effects in the same way that contractual conditions are treated. Indeed, as the practice of using DRM suggests, technology backed by legal protections can be a much more effective means of engaging in tied selling, even if DRM is not used to implement express contractual terms.¹¹⁰

Tied selling can have anticompetitive consequences. Commentators emphasize its adverse effect on entry into the market of competing products and increasing transaction cost.¹¹¹ Those effects are amplified when the tied selling is enforced by technological controls. DRM does not just make it more difficult for competing products to enter the market for tied goods, it makes it virtually impossible because it denies access to and use of the tying product. This potentially anticompetitive effect of DRM can be further amplified by anticircumvention laws. The effect can be a monopoly in the market for tied products. The U.S. experience in the market for laser and ink-jet printer toner cartridges provides a useful illustration of this problem.

Some printer manufacturers in the United States have attempted to use DRM technologies and anticircumvention laws to prevent competitors from entering the toner cartridge aftermarket with less expensive products. These manufacturers placed security chips in their printers and cartridges in order to authenticate the manufacturer of a cartridge.¹¹² If a toner cartridge manufactured by a competitor was detected, the printers would not operate. Chip-makers then began selling chips that enabled less expensive aftermarket cartridges to work with brand name printers.

In 2003, Lexmark, the second largest printer vendor in the United States, sued a chip manufacturer, Static Control Corp., asserting that Static Control had violated the *DMCA* by circumventing DRM technology that controlled access to Lexmark's printers.¹¹³ The U.S. District Court sided with Lexmark, ruling that by allowing its

Bureau of Competition Policy, "Competition Policy and Intellectual Property Rights: Complementary Framework Policies for a Dynamic Market Economy" (Notes for address delivered to the 36th World Congress of the AIPPI, Montreal, 29 June 1995), online: Competition Bureau <<http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=980&lg=e>>.

¹⁰⁹ See *Tele-Direct*, *supra* note 28 at 173.

¹¹⁰ See e.g. Declan McCullagh, "StorageTek Wins Copyright Injunction" *CNet News.com* (12 July 2004), online: CNet News.com <http://ecoustics-cnet.com.com/StorageTek+wins+copyright+injunction/2100-1015_3-5266031.html>.

¹¹¹ See e.g. C.J. Michael Flavell & Christopher J. Kent, *The Canadian Competition Law Handbook* (Scarborough: Carswell, 1997) at 72-77.

¹¹² See Barry Nalebuff, "Bundling, Tying, and Portfolio Effects" (February 2003) at 79-82, online: Centre for Industrial Economics at the Ecole des Mines de Paris <<http://www.cerna.ensmp.fr/Enseignement/CoursEUCompetitionLaw/13-EconomicsBundlingTying.pdf>>; Springman, *supra* note 105.

¹¹³ *Lexmark International v. Static Control Components* 253 F. Supp. 2d 943 (E.D. Ky. 2003) [*Lexmark*].

chips to mimic Lexmark’s cartridge authentication procedure, Static Control was circumventing Lexmark’s DRM in violation of the *DMCA*. The court granted Lexmark a preliminary injunction prohibiting the sale of Static’s chips.

The U.S. Court of Appeals for the Sixth Circuit reversed the judgment of the lower court.¹¹⁴ The appeals court decided that in order to receive the protection of the *DMCA*’s anticircumvention provisions, the challenged circumvention device must control access to a work protected under the copyright statute. Since Lexmark’s cartridge was not a work protected under the copyright statute, circumvention of the authentication procedure did not trigger application of the *DMCA*.¹¹⁵

Lexmark is an example of an attempt to use DRM and anticircumvention laws to monopolize markets for complementary products by controlling compatibility and interoperability. In effect, this is a tied selling of two products where the tying is expressed in technology (backed by legal threats). This form of tying is pervasive and guarantees that only products of one brand can be compatible with one another. Such monopolization can have an adverse economic effect on consumers.¹¹⁶ The market for printer cartridges gives a good indication of how prices in the concerned markets can be affected. In 2003, Lexmark was selling one model of its printer cartridges protected by DRM technology for about \$375. A customer could buy an equivalent remanufactured cartridge of comparable quality for about \$165. All else being equal, consumers would likely not have bought Lexmark’s cartridges if a cheaper equivalent was available.¹¹⁷

It has been suggested that competition in the foremarkets prevents manufacturers from exercising market power in the aftermarkets.¹¹⁸ This is far from certain, however, when high-cost equipment is involved. In two cases decided by the Supreme Court of the United States, *Eastman Kodak v. Image Technical Services*¹¹⁹ and *Virtual Maintenance v. Prime Computer*,¹²⁰ the court found that the high cost of

¹¹⁴ *Lexmark International v. Static Control Components*, 387 F.3d 522 (6th Cir. 2004).

¹¹⁵ *Ibid.* at 548.

¹¹⁶ See Severin Borenstein, Jeffrey K. MacKie-Mason & Janet S. Netz, “Exercising Market Power in Proprietary Aftermarkets” (2000) 9 *Journal of Economics & Management Strategy* 157. However, the effect of competition in foremarkets on price increases in aftermarkets is open to debate. See e.g. Nalebuff, *supra* note 112 at 82-83; Eric R. Emch, “Does Opportunism Explain Markups in Laser Printer Toner and Memory? No and Yes. Evidence on Pricing in Laser Printer Aftermarkets” (2002) [unpublished], online: Social Science Research Network <<http://papers.ssrn.com/abstract=311840>>; *Eastman Kodak v. Image Technical Services*, 504 U.S. 451, 112 S. Ct. 2072, 119 L. Ed. 2d 265 (1992). Lexmark’s pricing policy, however, suggests that the customers already locked-in in the market of toner cartridges for Lexmark’s printers would be adversely affected.

¹¹⁷ See Sprigman, *supra* note 105.

¹¹⁸ See Mark A. Glick & Duncan J. Cameron, “When Do Proprietary Aftermarkets Benefit Consumers?” (1999) 67 *Antitrust L.J.* 357.

¹¹⁹ *Supra* note 116.

¹²⁰ 957 F.2d 1318 (6th Cir. 1992), cert. granted, judgment vacated, 506 U.S. 910, 113 S. Ct. 314, 121 L. Ed. 2d 235 (1992), on remand, 995 F.2d 1324 (6th Cir. 1993), opinion withdrawn and superseded, 11 F.3d 660 (6th Cir. 1993), cert. dismissed, 512 U.S. 1216, 114 S. Ct. 2700, 114 S. Ct. 2700 (1994).

switching to a different brand of equipment allowed manufacturers of original products to exercise market power in the aftermarket. Indeed, many of the antitrust cases involving aftermarkets show evidence of the high cost of switching.¹²¹ These costs are particularly high for sophisticated electronic equipment, including computers and some software.¹²²

In addition to eliminating competition in the aftermarket, the practice of tied selling guarded by DRM technology and anticircumvention laws has adverse effects on competition in the foremarket. By deriving high benefits in the aftermarket, the manufacturer of the equipment can keep the prices in the foremarket artificially low, thus preventing potential competitors who do not have an established market for aftermarket products from entering the foremarket.

The practice of using DRM to tie equipment with complementary products, and using anticircumvention laws to reinforce the tying and to prevent competition, is not limited to toner cartridges. In fact, it is becoming widespread in information technology goods and services markets. The technology has been employed by mobile phone vendors to ensure that the phones they sell only operate with “authorized” batteries (i.e., those not originating from a competitor).¹²³ Manufacturers of garage door systems have attempted to prevent interoperability of their products with door openers supplied by competitors.¹²⁴ Producers of video game consoles have attempted to use DRM to prevent use of their video games on PCs.¹²⁵ One video game maker applied for a patent that would allow it to tie a video game to one particular console, rendering it ineffective on another person’s console and thereby preventing the sharing or sale of video games.¹²⁶

One of the latest examples has arisen in the market for digital music distributed online. The songs offered by Apple’s iTunes music download service can be played only on the iPod players manufactured by Apple.¹²⁷ Such tying of content to devices has sparked a debate on the appropriate character and consequences of such selling,

¹²¹ See Borenstein, MacKie-Mason & Netz, *supra* note 116 at 162.

¹²² See Ross Anderson, “‘Trusted Computing’ Frequently Asked Questions” (August 2003), online: University of Cambridge <<http://www.cl.cam.ac.uk/~rja14/tepa-faq.html>>.

¹²³ NEC, a Japanese electronics giant, began to market its software that detects nonoriginal battery products in mobile phones and digital still camera batteries. NEC is considering “bundling the technology into hardware options” (NEC, Press Release, “NEC Electronics’ Software for Microcontrollers Verifies Authenticity of Mobile Phone and Digital Still Camera Batteries” (6 July 2004), online: NEC Electronics <<http://www.necel.com/en/news/archive/0407/0601.html>>).

¹²⁴ See *Chamberlain Group v. Skylink Technologies*, 381 F.3d 1178 (Fed. Cir. 2004), aff’d 292 F. Supp. 2d 1040 (N.D. Ill. 2003) [*Skylink*].

¹²⁵ See e.g. *Sony Computer Entertainment v. Connectix*, 203 F.3d 596 (9th Cir. 2000); *Sony Computer Entertainment America v. Bleem*, 214 F.3d 1022 (9th Cir. 2000).

¹²⁶ See Cory Doctorow, “New Sony Lockware Prevents Selling or Loaning of Games” (12 November 2005), online: BoingBoing <http://www.boingboing.net/2005/11/12/new_sony_lockware_pr.html>.

¹²⁷ See “Apples Are Not the Only Fruit” *The Economist* 380:8485 (8 July 2006) 70 at 70.

as well as the appropriateness of legal intervention in the market on competition law grounds:

Apple’s business model, however, turns this on its head. Apple makes its money from sales of the iPod, not sales of music; the printer, not the cartridge; the razor, not the blade. As Bill Shope, an equity analyst at JPMorgan, puts it, the music store is a “loss leader” that serves only to boost sales of the iPod. It is as if record stores existed only to sell record players.

...

Because the music store is only compatible with the iPod, a customer who wants to abandon Apple’s player in favour of something else must replace all the music he downloaded from the store. It is as though a person’s entire record collection worked on only one brand of gramophone. Hence with each song a customer buys, he binds himself a little more tightly to the iPod. Apple offers its customers a “Trojan horse”, according to Mr Shope. Customers embrace its iconic device, and then, like the hapless Trojans, find they have fallen into the hands of the gift-givers.

...

One need not worry about switching costs if there will never be anything to switch to. Applied to Apple, this argument goes something like this: every time someone buys a song on iTunes, he becomes a little less likely ever to abandon the iPod and makes the potential market for iPod’s rivals a little smaller.¹²⁸

In sum, DRM can be a powerful way to engage in practices that may be anticompetitive, particularly when it is legitimized, strengthened, and reinforced by anticircumvention laws that provide copyright holders with a legal weapon to brandish as a threat against potential competitors.

D. Security Research

DRM technology can be used in positive ways to improve the security of the information it protects.¹²⁹ DRM can be adapted to secure any type of information, and so in addition to protecting copyright works, it can be used as a tool for individuals to secure and control their own personal information.¹³⁰ In the same way that anticircumvention laws can have adverse effects on reverse engineering for

¹²⁸ *Ibid.*

¹²⁹ See e.g. John T. Mitchell, “DRM: The Good, the Bad, and the Ugly” (Presented at the Symposium sponsored by the Center for Intellectual Property in the Digital Environment, University of Maryland University College, Adelphi, Md., 10-11 June 2004), online: InteractionLaw <http://interactionlaw.com/documentos/DRM_good_bad_ugly.pdf>. See generally Daniel J. Gervais, “Electronic Rights Management and Digital Identifier Systems”, online: (March 1999) 4:3 Journal of Electronic Publishing <<http://www.press.umich.edu/jep/04-03/gervais.html>>.

¹³⁰ See e.g. National Research Council Canada, *Towards Meeting the Privacy Challenge: Adapting DRM* by L. Korba & S. Kenny (Ottawa: National Research Council Canada, 2002).

interoperability and innovation as described above, they can have a specific impact on computer and network security research.

In 2002, Richard Clarke, former White House cybersecurity advisor, stated that the *DMCA*'s anticircumvention provisions had had a "chilling effect on vulnerability research" in the United States.¹³¹ Two years earlier, Princeton Professor Edward Felten engaged in research regarding a DRM technology designed to protect digital music; his research was encouraged by the very producer of the technology at that time. When Felten discovered a weakness in the DRM and prepared to present his findings at an academic conference, the producer threatened legal action under the *DMCA*.¹³² Effects of this kind of activity have not been lost on lawmakers in the United Kingdom. In 2006, a report of the All Party Internet Group included the following statement:

We have considerable sympathy for the view that lack of research will mean that critical weaknesses in TPM systems will fail to be examined, leading to unnecessary problems for the content industry. The furore over Professor Felten's work in the US on the 'SDMI Challenge' has not been replicated in the UK, but we do not see it as being in anyone's long term interest for academics who spot flaws in systems to end up in court ...¹³³

Such legal threats to security researchers can take even more drastic forms.

In 2001, Russian programmer Dmitry Sklyarov was arrested and jailed for several weeks after speaking at a conference in Las Vegas regarding Adobe DRM technology. Adobe alleged that Sklyarov and his employer had violated the criminal provisions of the *DMCA* by creating software that circumvented Adobe's DRM technology to enable use of legitimately purchased electronic books on portable devices. Users of this software included blind people. Sklyarov was later released and his employer was acquitted of all charges. Nevertheless, the proceedings sent a chill through the scientific community.¹³⁴ Many foreign researchers became concerned with the way the *DMCA* was being used and refused to travel to the United States, boycotting scientific conferences.¹³⁵

In Canada, the Canadian security research and business community wrote directly to the Canadian government to express concern regarding the direction that copyright

¹³¹ Quoted in Hiawatha Bray, "Cyber Chief Speaks on Data Network Security" *The Boston Globe* (17 October 2002) C2.

¹³² See Pamela Samuelson, "Anticircumvention Rules: Threat to Science" (2001) 293 *Science Magazine* 2028.

¹³³ APiG, "DRM Report", *supra* note 67 at para. 65.

¹³⁴ See Lawrence Lessig, "Jail Time in the Digital Age" *New York Times* (30 July 2001) A17; Lisa Bownam, "Elcomsoft Verdict: Not Guilty" *CNet News.com* (17 December 2002), online: CNet News.com <<http://news.com.com/2100-1023-978176.html>>.

¹³⁵ See Will Knight, "Computer Scientists boycott US over Digital Copyright Law" *New Scientist* (23 July 2001), online: New Scientist <<http://www.newscientist.com/article.ns?id=dn1063>>.

reform was taking in Canada.¹³⁶ This community was concerned that anticircumvention provisions could be used to thwart scientific research and its potential commercialization. Even if adequate exemptions for research were included, the threat of litigation would have a chilling effect on many legitimate and innovative research initiatives, just as it has in the United States, with consequent impacts on innovation markets and for innovative products.¹³⁷

E. Product Labelling and Deceptive Marketing Practices

The *Consumer Packaging and Labelling Act*¹³⁸ and the *Competition Act* regulate product labelling and representations regarding products and services. For example, the *Competition Act* prohibits representations that are false or misleading in a material respect.¹³⁹ Similarly, the *Consumer Packaging and Labelling Act* prohibits false or misleading representations, including any description or illustration of quality, performance, or function.¹⁴⁰ These provisions are significant in the DRM context because there is evidence that DRM-protected content and devices are often not clearly labelled and do not perform as might be expected.

As a result of DRM technology implemented in compact discs and devices, some CDs issued today (and in the past) will not play in some devices, including, for example, car stereos.¹⁴¹ The restricted functionality of such CDs and devices has generally not been reflected in their labelling. Indeed, the misrepresentation in some cases is so material that it goes to the fundamental nature of the actual product being

¹³⁶ See e.g. Letter from Coalition of Canadian Security Businesses to Industry Minister David Emerson and Minister of Canadian Heritage Liza Frulla (8 March 2005), online: Canadian Internet Policy and Public Interest Clinic <http://www.cippic.ca/en/news/documents/Letter_to_Ministers_Emerson_and_Frulla_from_Security_Business_Community.pdf>; CIPPIC Press Release, *supra* note 1.

¹³⁷ There is ample evidence from the United States that, when faced with imminent litigation, researchers choose to decline presenting their projects or findings rather than risk legal proceedings, although some have started to release their findings anonymously. See e.g. Robert Lemos, “Security Workers: Copyright Law Stifles” *CNet News.com* (6 September 2001), online: CNet News.com <<http://news.com.com/2100-1001-272716.html>>; Wade Roush, “Breaking Microsoft’s e-Book Code” *Technology Review* (November 2001), online: Technology Review <<http://www.technologyreview.com/Infotech/12645>>.

¹³⁸ R.S.C. 1985, c. C-38.

¹³⁹ In the *Competition Act*, *supra* note 14, both s. 52, establishing criminal track, and s. 74.01, establishing civil track, contain the same prohibition. The *Misleading Advertising Guidelines* stipulate that nondisclosure of information that would likely have a tendency to affect a purchasing decision may be a misleading representation. See Canada, Competition Bureau, *Misleading Advertising Guidelines* (Ottawa: Consumer and Corporate Affairs Canada, 2001) at 8, online: Industry Canada <<http://strategis.ic.gc.ca/pics/ct/mislead.pdf>>.

¹⁴⁰ *Supra* note 138, s. 7.

¹⁴¹ See e.g. Martin H. Bosworth, “Coldplay Can’t Play: Band’s New CD Comes with Onerous Limitations” (4 January 2006), online: Consumer Affairs <<http://www.consumeraffairs.com/news04/2006/01/coldplay.html>>.

purchased. According to Philips, a Dutch company that created the compact-disc format along with Sony, CDs containing DRM cannot be classified as “CDs” at all and should not use the “CD” logo.¹⁴² To do so misleads consumers as to the quality and functionality of the product being purchased. A French court recently confirmed this conclusion in a case involving DRM-protected CDs.

In 2003, a French consumers’ organization commenced an action against EMI Music France. The group alleged that use of DRM technology by EMI, without proper notification to consumers, constituted a misleading and deceptive practice in violation of French consumer protection law. In this case, there was evidence that the CDs could not be played on personal computers or in car stereos. Although the label on the CDs indicated that the CD contained anticopying technology, it did not specify that the CD might not play in certain devices. The French court found that the practice was misleading and ordered EMI to use a clear warning on its CD labels.¹⁴³

In April 2005, another French court reached a similar conclusion regarding DRM-protected DVD movies.¹⁴⁴ This ruling effectively rendered eighty per cent of the DVDs in France illegal. The court found that the use of the mark “CP” in small print (to indicate “copying prohibited”) was insufficient notice to consumers and ordered the DVDs pulled from store shelves.

In the online context, DRM-enabled content delivery services have also been shown to disrupt consumer expectations regarding the nature of what they are purchasing and what they can do with the content they purchase.¹⁴⁵

Gone are the days of switching from vinyl to cassette tapes to CDs over a period of decades and years. Modern consumers must often navigate their way through non-standard, proprietary DRM technologies applied to content, software, and devices. The potentially adverse effects of such practices on consumers has been acknowledged by copyright holders themselves—a vice-president at Warner Music

¹⁴² See *ibid.*

¹⁴³ See C.A. Versailles, 30 September 2004, *S.A. EMI Music France c. Association CLCV*, 1^{re} chambre, 1^{re} section. For a brief discussion of the case and of the lower court’s decision, which the court of appeal followed, see Natali Helberger, “Thou shalt not Mislead thy Customer! The Pitfalls of Labelling and Transparency”, online: (2005) 1 *Indicare Monitor* 198 <<http://www.indicare.org/monitor>>; Anne-Catherine Lorrain & Thierry Maillard in *Copyright Laws in Digital Europe*, online: Euro-Copyrights.org <<http://www.euro-copyrights.org/index/2/16>>.

¹⁴⁴ See C.A. Paris, 22 April 2005, *Perquin c. Universal Pictures Video France*, 4^{ème} chambre, section B. For a brief discussion of the case, see J. David Goodman, “Consumers Fight Copy Protection” *International Herald Tribune* (11 November 2005), online: *International Herald Tribune* <<http://www.iht.com/articles/2005/11/11/business/ptcopy12.php>>.

¹⁴⁵ See Deirdre K. Mulligan, John Han & Aaron J. Burstein, “How DRM-Based Content Delivery Systems Disrupt Expectations of ‘Personal Use’” (Paper presented at the Third Association for Computing Machinery Workshop on Digital Rights Management, Washington, D.C., 27 October 2003), online: Association For Computing Machinery <<http://portal.acm.org/citation.cfm?doid=947380.947391>>.

Group has stated that we will begin to see people with “large libraries of content that won’t play with their devices.”¹⁴⁶

In late 2005, a major public outcry erupted when Sony BMG was discovered to have sold CDs containing DRM software that installed itself secretly on consumers’ computers, arguably without adequate labelling or notice to consumers.¹⁴⁷ The installed DRM was virtually invisible to consumers. Making things worse, the DRM could not be removed without damaging the operating system of the computer.¹⁴⁸ This DRM system created a serious threat to individual privacy and computer security, resulting in virus infections in more than 500,000 computer networks, including government and military sites.¹⁴⁹ In addition to class action lawsuits commenced against Sony BMG in Canada and the United States, the Attorney General of Texas commenced an action against Sony BMG, alleging, *inter alia*, that the DRM system violated the state’s spyware.¹⁵⁰ The Sony BMG case provides an illustration not only of potential problems and harms of DRM, but also of how DRM can be used without providing consumers sufficient information or notice.

The preceding discussion illustrates that there are reasons to ask whether DRM and anticircumvention laws will produce a market for copyright goods that offers Canadian consumers competitive pricing or product choices. Even if labelling were

¹⁴⁶ Kevin Gage, quoted in Stefanie Olson, “Piracy Fears Threaten Hollywood Innovation” *TechRepublic* (29 September 2004), online: TechRepublic <<http://techrepublic.com.com/5102-22-5388602.html>>.

¹⁴⁷ Sony’s software, while one of the most intrusive, was not the first installed by computer and entertainment industries without disclosure. This practice is becoming increasingly widespread. See e.g. John Borland, “Who has the right to control your PC?” *CNet News.com* (21 November 2005), online: CNet News.com <http://news.com.com/Who+has+the+right+to+control+your+PC/2100-1029_3-5961609.html?tag=nl>.

¹⁴⁸ See Andrew Orlowski, “Removing Sony’s ‘Rootkit’ Kills Windows” *The Register* (1 November 2005), online: The Register <http://www.theregister.co.uk/2005/11/01/sony_rootkit_drm/>. Mark Russinovich has written about his own experience with the rootkit, stating that “[t]he entire experience was frustrating and irritating. Not only had Sony put software on my system that uses techniques commonly used by malware to mask its presence, the software is poorly written and provides no means for uninstall. Worse, most users that stumble across the cloaked files with a RKR scan will cripple their computer if they attempt the obvious step of deleting the cloaked files” (Personal Blog, online: Technet <<http://blogs.technet.com/markrussinovich/archive/2005/10/31/sony-rootkits-and-digital-rights-management-gone-too-far.aspx>>).

¹⁴⁹ See Quinn Norton, “Sony Numbers Add Up to Trouble” *Wired News* (15 November 2005), online: Wired News <http://wired-vig.wired.com/news/technology/0,1282,69573,00.html?tw=wn_tophead_2>.

¹⁵⁰ See Office of the Attorney General of Texas, Press Release, “Attorney General Abbott Brings First Enforcement Action in Nation against Sony BMG for Spyware Violations” (21 November 2005), online: Attorney General of Texas Greg Abbott <<http://www.oag.state.tx.us/oagNews/release.php?id=1266>>. In December 2006, Sony reportedly settled the case with Texas for payment of \$750,000 and a refund to all consumers affected by its software. See Jim Welte, “Sony BMG to pay \$1.5M in rootkit case” (20 December 2006), online: MP3.com <<http://www.mp3.com/news/stories/7767.html>>.

adequate, challenges are raised by the changing technological environment of formats and devices.

IV. Creating a Competition Policy Framework for the Twenty-first Century

A. Advocacy on Copyright Is Essential

The Bureau may use its mandate to promote competition and the efficient allocation of resources to intervene in policy discussions and debates regarding the appropriate scope, definition, breadth and length of IP rights.

*IPEG's*¹⁵¹

The Competition Bureau has a unique opportunity and responsibility to infuse competition considerations into copyright law as Canada considers whether to amend its copyright law. Participating in government consultations and hearings in order to influence policy is exactly the kind of activity that the Bureau has indicated to the International Competition Network is an essential function of an effective competition authority.¹⁵² This article has outlined a number of reasons why DRM and anticircumvention provisions raise critical competition issues that demand advocacy by the Competition Bureau. In the area of personal privacy, for example, the privacy commissioner of Canada did not wait to be consulted by copyright policy makers—she contacted them.¹⁵³ The Bureau could follow this lead immediately and fully participate when hearings and public consultations on copyright begin.¹⁵⁴

Indeed, in late 2005, Commissioner of Competition Sheridan Scott stated publicly that advocacy in the area of intellectual property would be a priority for the Competition Bureau: “Increasingly ... we will turn our attention to two relatively new

¹⁵¹ *Supra* note 11 at 15.

¹⁵² Sally Southey, the assistant commissioner of communications at the Competition Bureau, remarked on this in a recent presentation to the Network (“Improving the Effectiveness of Competition Advocacy” (delivered at the Third Annual International Competition Network Conference, Seoul, Korea, 21-22 April 2004) [unpublished]). See also Sheridan Scott, “Opening Remarks” (delivered at the Canadian Bar Association Annual Fall Conference on Competition Law, Gatineau, Qc., 3 November 2005), online: Competition Bureau <<http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1999&lg=e>> [Scott, “Opening Remarks”].

¹⁵³ See Letter from Jennifer Stoddart, *supra* note 38.

¹⁵⁴ The Bureau has appeared at a number of hearings on matters related to intellectual property industries and the cultural sector, including most recently the Canadian feature film industry. Gaston Jorré, the senior deputy commissioner of competition at the Competition Bureau, recently provided a description of the Bureau’s position in that matter and in past matters. See Gaston Jorré, “Study of the Canadian Feature Film Industry” (Remarks to the Standing Committee on Canadian Heritage, 10 May 2005), online: Competition Bureau <<http://www.competitionbureau.gc.ca/internet/index.cfm?itemID=1742&lg=e>>.

areas that I believe would benefit from careful input: intellectual property and health.”¹⁵⁵ The commissioner referenced the following four-point strategic framework developed by the Bureau in determining how to set its priorities:

- Does a ready forum to present information exist?
- Can the Bureau bring its unique perspective to bear on this issue in a useful way?
- Will we be able to gauge or measure any effects our advocacy efforts may have?
- Will our advocacy efforts have clear benefits for Canadians?¹⁵⁶

Although the commissioner has not publicly addressed the answers to each of these questions in the context of copyright reform, it is clear that each one militates in favour of active advocacy by the Bureau. First, the Bureau can immediately present information directly to the two ministries overseeing copyright reform—Canadian Heritage and Industry Canada—and in a more formal way to the committee(s) of the House of Commons expected to engage in public consultations regarding future copyright reform.

Second, the Competition Bureau can bring its perspective to bear on copyright in a useful way. Thus far in the copyright reform process in Canada there appears to have been little or no analysis of the competition policy implications, and no public consultation with the Bureau. The Bureau can bring to the process much-needed expertise in competition law and policy.

With respect to the third factor, the Competition Bureau will be able to gauge and measure the effects of its advocacy in a number of different ways. The effects of the Bureau’s advocacy might be openly identified and explained by Canadian Heritage and Industry Canada in the course of consultations. The Bureau’s advocacy might also be measured by actual changes to future anticircumvention legislation or the *Competition Act* in some of the ways identified in this article. Finally, the Bureau might be able to gauge the effects of its advocacy over the long term by assessing the number of competition issues arising from changes to copyright law, particularly as compared to countries like the United States that have arguably failed to adequately address competition issues in copyright reform.

Finally, on the fourth point raised by the commissioner, it is beyond question that Canadians would benefit from the Competition Bureau’s advocacy on copyright. At the most basic level, Canadians would benefit from an inclusive and holistic approach to potential copyright reform that includes all stakeholders and perspectives. At a minimum, this could help avoid unintended consequences for competition law and

¹⁵⁵ Scott, “Bureau Progress and Priorities”, *supra* note 8 at 10. In some cases, these two priorities may actually overlap because DRM may have applications in the area of pharmaceuticals. See Part IV.E, below.

¹⁵⁶ *Ibid.* at 9.

policy. A number of commentators have criticized the Canadian copyright reform process thus far, suggesting that public consultations principally reflected the concerns, interests, and lobbying efforts of large multinational music recording companies represented by the CRIA.¹⁵⁷ Many commentators, including artists themselves,¹⁵⁸ argue that the voices of creators and artists, ordinary consumers, the public at large, and small and medium-sized businesses have been largely, if not completely, overlooked in this process. These stakeholders will benefit from the Bureau's advocacy to the extent that the Bureau would represent their interests. The protection of the interests of consumers and small to medium-sized enterprises is in fact one of the key purposes of the *Competition Act*.¹⁵⁹

The fact that competition and intellectual property share similar objectives further suggests that the Competition Bureau's participation as an advocate in copyright reform is a natural fit. Adopting an advocacy approach to copyright reform and the impact of DRM technologies is also consistent with the idea that the advocacy of competition authorities is an effective way to address intellectual property rights and competition in the context of complex technologies and innovation.¹⁶⁰

B. Infusing Competition Policy into Copyright Reform

DRM technology can pose serious challenges for competition policy. These challenges appear to be aggravated and multiplied when DRM is protected by anticircumvention laws, especially in the form of anti-device provisions.

One possible way to limit the anticompetitive uses and effects of DRM would be to deny it legal protection as an independent addition to copyright, particularly in the case of anti-device provisions. Anti-device provisions that directly regulate

¹⁵⁷ See generally Laura Murray, "Copyright Talk: Patterns and Pitfalls in Canadian Policy Discourses" in Geist, *supra* note 4. Murray writes:

[T]he music industry has not had to justify its location at centre-stage of copyright discussion. The recording industry lobby has been extraordinarily effective, such that music file-sharing is commonly taken to be the predominant Internet activity and policy problem that sets the tone for or even trumps all others. ...

Music file-sharing is behind every tree for members of the Heritage Committee (*ibid.* at 27-28).

¹⁵⁸ The Canadian Music Creators Coalition, which has numerous well known Canadian musicians as members and which seeks to influence Canadian copyright law, is a manifestation of this frustration. See online: Canadian Music Creators Coalition <<http://www.musiccreators.ca/>>.

¹⁵⁹ *Supra* note 14, s.1.1.

¹⁶⁰ See Robert D. Anderson & Nancy T. Gallini, "Summary and Conclusions" in Robert D. Anderson & Nancy T. Gallini, eds., *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy* (Calgary: University of Calgary Press, 1998) 463 ("Ensuring an appropriate balance between competition and IP policies, especially as they apply to complex technologies, may best be served by the participation of the competition authorities in reviews of the relevant legislation" at 469).

technology can result in chilling effects on innovation.¹⁶¹ Even if some type of anticircumvention provision were determined to be a necessary addition to copyright, the provision could be added in such a way as to promote copyright goals while at the same time ensuring that adverse competition issues are kept to a minimum.

For example, rather than creating an independent cause of action for circumvention, the *Copyright Act* might incorporate circumvention into the analysis of *remedies* where actual copyright infringement has taken place. The *Copyright Act* could direct courts to consider circumvention as an aggravating factor in cases of infringement, possibly indicating a higher degree of intent to infringe and justifying a commensurate remedy or penalty. This would keep the focus of copyright on copyright and minimize copyright owners’ ability to use anticircumvention laws in anticompetitive ways. In a related way, the *Copyright Act* might also provide Canadians with an affirmative right to circumvent when the person does not engage in infringement of the underlying work.

With respect to promoting security research and reverse engineering to achieve innovation and interoperability, it is important to note that the *DMCA* permits circumvention of DRM for reverse engineering purposes. The exception, however, is narrowly crafted and applies only to computer software.¹⁶² Canada might allow a broader range of reverse engineering for any purpose where infringement of the underlying work is not involved. In doing so, however, Canada must recognize the limited value of such exceptions from a competition perspective. First, the potential threat of litigation has a chilling effect on reverse engineering and security research. Second, reverse engineering often requires significant resources and a high level of

¹⁶¹ This point is made in the quote from Bob Young reproduced at outset of this article. At the other end of the spectrum, it is interesting to note that Japan has enacted anti-device provisions in its competition legislation, stating that unfair competition includes, for example

acts of assigning, delivering, displaying for the purpose of assignment or delivery, exporting or importing (a) devices (including machines incorporating such devices) having the sole function of enabling the viewing of images or hearing of sounds, the running of programs, or the recording of images, sounds or programs which are restricted by technological restriction measures that are used in business ... (*Fusei Kyoso Boshiho* [Unfair Competition Prevention Law], Law No. 14 of 1934, as am. by Law No. 47 of 1993 and Law No. 75 of 2005, art. 2(1)(x), trans. online: Nagoya University, Graduate School of Information Science <<http://www.kl.i.is.nagoya-u.ac.jp/told/h05a04701en1.1.txt>>).

For a discussion of the provision, see de Werra, *supra* note 52.

¹⁶² The *DMCA*, *supra* note 53 authorizes the circumvention of DRM for the “sole purpose of identifying and analyzing those elements of the program that are necessary to achieve interoperability of an independently created computer program with other programs ...” (§1201(f)(1)). The exemption applies only to interoperability between programs; thus, using reverse engineering to achieve interoperability between hardware products would be prohibited. Such narrow interpretation of this exemption was supported in *Corley*, *supra* note 57 and *Universal City Studios v. Reimerdes*, 111 F. Supp. 2d 346 (S.D.N.Y. 2000). The exemption, however, seems to have been expanded in *Lexmark*, *supra* note 113 and *Skylink*, *supra* note 124.

expertise, making this option potentially unrealistic for small and medium-sized competitors. This is a critical shortcoming in an information society where fast-moving start-ups can drive innovation and competition in markets.

In the face of these limits, other mechanisms could be used to advance the policy goal of promoting creativity and innovation by ensuring proper access to protected content. One possibility is mandatory licensing of DRM technology to competitors. This would help ensure that the problem of copyright infringement is addressed and would at the same time ensure that competitors in relevant markets are not prevented from innovating and supplying competing products by reason of technological constraints and legal threats. Although some might argue that mandatory licensing is an overly invasive solution,¹⁶³ it may be warranted when interoperability disclosures are essential for preserving competition in a market.

An appropriately tailored system of exceptions could theoretically limit the anticompetitive effects of DRM technology.¹⁶⁴ It would, however, do less to eliminate the chill on innovation and creativity created by anticircumvention laws. One possible way to help address this problem would be to include in the *Copyright Act* a provision similar to the equitable doctrine of copyright misuse in the United States, which could be invoked in cases where copyright or anticircumvention provisions are used for purposes other than copyright protection.¹⁶⁵ Although U.S. courts have not recognized the misuse doctrine in the context of *DMCA* circumvention claims,¹⁶⁶ the doctrine normally allows a copyright defendant to defend an infringement action on the ground that the plaintiff has used its copyright in an anticompetitive manner. The doctrine of copyright misuse has been increasingly used in cases where copyright law is employed to protect information technologies.¹⁶⁷ Canadian courts have not yet

¹⁶³ The doctrine of “monopoly leveraging” has been rejected by the U.S. Supreme Court in *Verizon Communications v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 124 S. Ct. 872, 157 L. Ed. 2d 823 (2004), which may suggest different standards for mandatory licensing in the United States and the European Union. It has also been argued that mandatory licensing can have negative effects on economic welfare. See Claude Crampes & Abraham Hollander, “Competition and Intellectual Property in the European Union” (2005) [unpublished], online: Institut d’économie industrielle <<http://idei.fr/doc/wp/2005/crampes.pdf>>.

¹⁶⁴ Graham Henderson, President of the CRIA, claims that exceptions are the entire answer to critics of *DMCA*-style anticircumvention (*supra* note 65).

¹⁶⁵ The U.S. doctrine of copyright misuse was first mentioned in *Morton Salt v. G.S. Suppiger*, 314 U.S. 488, 62 S. Ct. 402, 86 L. Ed. 363 (1942), a U.S. Supreme Court case that established the patent misuse doctrine. However, it remained largely undeveloped until the 1990 decision in *Lasercomb America v. Reynolds*, 911 F.2d 970 (4th Cir. 1990). See generally Wong, *supra* note 13 at 13-14.

¹⁶⁶ See e.g. *Lexmark*, *supra* note 113 at 965; *Sony Computer Entertainment America v. Gamemasters*, 87 F. Supp.2d 976 (N.D. Cal. 1999) at 989.

¹⁶⁷ See Robert P. Merges, Peter S. Menell & Mark A. Lemley, *Intellectual Property in the New Technological Age*, 3d ed. (New York: Aspen, 2003) at 494.

adopted the doctrine. It is arguable that importing it into Canadian copyright law could help further both copyright and competition policy goals.¹⁶⁸

Competition in the digital environment could also be enhanced by labelling requirements referring specifically to DRM technology. Because the technology is very flexible, products implementing DRM may have very different functionality despite appearances of similarity. Compelling manufacturers to reveal DRM restrictions would not only help ensure a level field for competition but also protect consumers against false, misleading, or deceptive statements. This approach has already been proposed in the United States¹⁶⁹ and has been discussed and recommended in the United Kingdom:

The rights holders stressed to us that if TPMs were unpopular then “the market” would automatically fix the problem over time. We agree with this view, but it is crucial to note that the market cannot function efficiently when consumers are unaware of the presence of TPM mechanisms, fail to understand what acts will be forbidden, or when they have no real choice because particular content is only available with TPM restrictions.¹⁷⁰

The existing provisions of the *Consumer Packaging and Labelling Act* seem to be insufficient; although that legislation does prohibit vendors of products from using labels that would be false or misleading,¹⁷¹ it does not require them to be frank and forthcoming about the technological functionality of their products. The order of the French court in the CD case discussed in Part III.E of this article represents an example of a forthcoming disclosure.¹⁷² Labelling and description of DRM restrictions could be made mandatory, failing which consumers might be provided the unfettered right to circumvent the protection.

C. Legislative Reform of the Competition Act

In addition to infusing competition policy into the copyright reform process as suggested above, legislators could change competition law itself. Part I of this article outlined some limitations of section 32 of the *Competition Act*.¹⁷³ One of those limits

¹⁶⁸ See Mark A. Lemley, “Beyond Preemption: The Law and Policy of Intellectual Property Licensing” (1999) 87 Cal. L. Rev. 111 (noting the departure of the copyright misuse doctrine from antitrust principles to copyright policy). The American doctrine of copyright misuse has been applied as an affirmative defence. See *Novell v. CPU Distributing*, 2000 U.S. Dist. LEXIS 9952 (S.D. Tex. 2000) at 15-16. To increase its effectiveness, however, Canadian legislation might recognize copyright misuse as an independent claim for affirmative relief.

¹⁶⁹ The U.S. Senate is considering a bill that would require the Federal Trade Commission to issue rules regarding the disclosure of technological measures that restrict consumer flexibility to use and manipulate digital information and entertainment content. See U.S., Bill S. 692 *Digital Consumer Right to Know Act*, 108th Cong., 2003.

¹⁷⁰ APiG, “DRM Report”, *supra* note 67 at para. 96.

¹⁷¹ *Supra* note 138, s. 7.

¹⁷² See *supra* note 143 and accompanying text.

¹⁷³ *Supra* note 14.

was based on the assumption that section 32 is a criminal section requiring the involvement of the Attorney General. Competition policy could benefit by changing section 32 to a civil matter in the *Competition Act* as a reviewable matter. This would put beyond question the nature of the section and the standard of proof required. It would also free the Competition Bureau to engage and control the application of section 32 more effectively in appropriate cases involving intellectual property rights. Changing section 32 would also be consistent with a recent trend in competition law to move matters that are clearly not criminal in nature outside the realm of criminal law. For example, merger and monopoly provisions were removed to the civil side in 1985.¹⁷⁴

Dr. Stanley Wong has expressed a view of the appropriate approach to section 32 that appears to be consistent with the suggestion for reform described above. He offers a possible explanation for why section 32 was not included in Part VIII of the *Competition Act* in the first place:

Section 32 should be considered a “reviewable matter” and would likely have been put into Part VIII but for the fact that only the Federal Court has jurisdiction over s. 32. It may not be constitutionally permissible to transfer jurisdiction over s. 32 to the Competition Tribunal since the Federal Court has supervisory jurisdiction over registration of statutory intellectual property rights.¹⁷⁵

The potential jurisdictional problem referenced in this passage is not explained. It may refer to the exclusive authority of the Federal Court to cancel or amend an entry on the Copyright Registry,¹⁷⁶ which is a possible outcome in adjudication under section 32.

Although a detailed analysis of the jurisdiction question is beyond the scope of this article, it may be possible to address the matter by granting the Competition Tribunal concurrent jurisdiction to make changes to the copyright registry in cases involving competition law. This would not be an entirely novel approach to jurisdictional issues involving copyright. At present, the Federal Court and provincial courts have concurrent jurisdiction over litigation for infringement of copyright,¹⁷⁷ which does not prevent provincial courts from effective adjudication in cases that require subsequent changes to the copyright registry. Also, the six judicial members of the Competition Tribunal could be vested with exclusive jurisdiction over the intellectual property remedies listed under section 32. This second solution may be preferable given the Competition Tribunal members' relative expertise in the field of competition law.

¹⁷⁴ See *An Act to establish the Competition Tribunal and to amend the Combines Investigation Act and the Bank Act and other Acts in consequence thereof*, *supra* note 26.

¹⁷⁵ *Supra* note 13 at 17-18.

¹⁷⁶ See *Copyright Act*, *supra* note 5, s. 57(4).

¹⁷⁷ See *ibid.*, s. 37. See also Vaver, *supra* note 98 at 253-54.

D. Enforcement

Legislative changes addressing the possible anticompetitive uses of DRM and anticircumvention laws are necessary but insufficient. Legislative change must be followed by active enforcement by the Competition Bureau. As copyright continues on its expanding course, investigating the effects of DRM and anticircumvention laws on competition should be made a priority at the Bureau and should be clearly communicated to the business community. There is at least one indication that competition enforcement in the area of intellectual property will in fact become a priority of the Bureau. The commissioner of competition has publicly stated that the Bureau’s enforcement actions will be informed by its advocacy priorities, including intellectual property.¹⁷⁸

Recognition of the anticompetitive potential of DRM and anticircumvention laws should also be reflected in the guidelines issued by the Competition Bureau.¹⁷⁹ For example, to clarify the Bureau’s position on “technological tying”, the *IPEGs* could include a section dedicated to tied selling, similar to the *Antitrust Guidelines for the Licensing of Intellectual Property* issued by the U.S. Department of Justice and the Federal Trade Commission.¹⁸⁰ Similarly, a section on misleading advertising and deceptive practices could give notice of the Bureau’s enforcement practices in situations where consumers are misled regarding DRM restrictions.

In addition, the Competition Bureau could be actively engaged in bringing an increased number of cases before the tribunal and the courts in the context of DRM and anticircumvention. This step would be consistent with the Bureau’s confirmation that the purpose behind subsection 32(2) was to adapt to new intellectual property architectures that expand the breadth and scope of intellectual property rights. In response to the idea that intellectual property has been expanding over the past decade with direct effects on competition, including through anticircumvention laws like the *DMCA*, Gwilym Allen of the Bureau stated the following regarding the role of the Bureau in using subsection 32(2) to address intellectual property expansion:

¹⁷⁸ See Scott, “Bureau Progress and Priorities”, *supra* note 8 at 8-10. The commissioner also indicated that one of the Bureau’s top enforcement priorities is “ensuring accurate information in the marketplace” (*ibid.* at 8). This has obvious importance in connection with the product labelling and deceptive marketing issues described in Part III.E, above.

¹⁷⁹ The Standing Committee on Industry, Science and Technology recommended “[t]hat the Competition Bureau review its enforcement guidelines, policies and practices to ensure appropriate emphasis is placed on dynamic efficiency considerations in light of new challenges posed by the knowledge-based economy ...” (Standing Committee on Industry, Science and Technology, *A Plan to Modernize Canada’s Competition Regime* (Ottawa: Standing Committee on Industry, Science and Technology, 2002), recommendation 2, online: The Parliament of Canada <<http://cmte.parl.gc.ca/Content/HOC/committee/371/inst/reports/rp1032077/indurp08/09-rec-e.htm>>).

¹⁸⁰ U.S., Federal Trade Commission & U.S., Department of Justice, *Antitrust Guidelines for the Licensing of Intellectual Property* (6 April 1995) § 5.3, reprinted in 4 Trade Reg. Rep. ¶ 13,132, online: U.S. Department of Justice <<http://www.usdoj.gov/atr/public/guidelines/0558.pdf>>.

[T]he architecture of the law can change such that the objectives in the intellectual property are actually being undermined by their very use.

And as a marker that that may be happening would be the effects on competition. And that may be that competition law or authority should step in and try to readjust the balance or at least put it before a court—and in our case it's the Federal Court—to consider the readjustment of that balance.¹⁸¹

In spite of the foregoing arguments in support of vigilant enforcement by the Competition Bureau, it must be acknowledged that the Bureau has other enforcement priorities and a limited budget for enforcement efforts. This practical limitation on the ability to enforce does not suggest that enforcement should not be a matter of priority in the area of intellectual property. On the contrary, intellectual property is critical for many businesses in modern markets. On the one hand, intellectual property can be an essential asset for companies of all sizes and types. On the other hand, intellectual property can create a significant barrier to innovation and competition in almost every market, particularly for small and medium-sized businesses. This is particularly true in the context of DRM and anticircumvention laws. The effects of intellectual property on competition ought to receive priority enforcement attention from the Competition Bureau.

Finally, it is important to note that there are at least two means by which to circumvent the problem of budgetary limitations facing the Bureau. One obvious solution is to increase the budget. Another solution is for the Bureau to invest in *preventative* measures, like advocacy, to help ensure that copyright reform does not cause downstream competition law problems that need to be enforced. Examples of such measures are described in Parts IV.A and IV.B of this article.

Before leaving the issue of enforcement, it is important to qualify the idea that vigilant enforcement and legislative change may be necessary responses to Canada's possible copyright amendments. Just as intellectual property overbreadth can undermine the objectives of intellectual property law, so too could competition overbreadth (in the form of overly strong competition laws or overly aggressive enforcement in the area of intellectual property). Although intellectual property must be answerable to competition law in appropriate cases, competition law must also tread carefully so as to avoid undermining the objectives of intellectual property law.

E. Digital Rights Management Technology and Standards Setting

DRM technology is relatively new and its effects on the interoperability of various products and on competition in affected markets are only beginning to be felt. However, DRM is spreading rapidly. Its potential to create new competition law problems and to extend existing ones cannot be ignored. Some commentators envisage DRM “unmoor[ing]” itself from copyright and transforming into “Property

¹⁸¹ DOJ/FTC Hearing, *supra* note 20 at 141-42.

Rights Management”, a system controlling and managing rights in a broad array of traditional tangible goods.¹⁸²

A recent development in DRM technology, already partially implemented by Microsoft in its next generation of operating systems, is known as “trusted computing” (“TC”). TC involves binding computer operating systems with hardware components to create a “secure” computing platform that cannot be tampered with.¹⁸³ TC is controversial because, although it purports to offer increased security for computer users,¹⁸⁴ it can be used in anticompetitive ways. One of the prominent features of TC is remote attestation of the computer system. This means that if a computer system is found to be altered or to be using “unapproved” software, it will be considered “untrusted” and will not be able to exchange data or files with other programs or systems. In effect, the companies creating the software and platforms will be able to control compatibility and to manage the markets for complementary products, software in particular, by holding consumers’ underlying data hostage in the TC system. This could have adverse effects on competition in the computer software market, particularly because it exponentially increases the cost of switching from one system to another, in the broadest sense of that term.¹⁸⁵

In addition to keeping abreast of developments in DRM technology, including TC, the Competition Bureau ought to consider monitoring and possibly becoming involved in DRM standards setting. Although standards can promote interoperability, stimulating innovation and competition, they can also stifle competition:

Compatibility between products can greatly enhance their value to consumers and businesses. For example, technical standards for digitizing data have proven vital for the usefulness and commercial viability of cellular phones, CDs, CD players, Internet communications, and a host of other products. However, the standard setting process generally requires that competitors come together to coordinate on a technological standard. In such a setting, there are opportunities for anticompetitive behavior as companies exert their influence over the process. After a standard has been established, there are many issues regarding access to the technology embodied in the standard; limited access could restrict the number of competitors in a market and severely

¹⁸² Ed Felten, “DRM Wars: Property Rights Management”, online: Freedom to Tinker <<http://www.freedom-to-tinker.com/?p=1052>>.

¹⁸³ See Anderson, *supra* note 122.

¹⁸⁴ See Seth Schoen, “Trusted Computing: Promise and Risk”, online: Electronic Frontier Foundation <http://www EFF.org/Infrastructure/trusted_computing/20031001_tc.php>.

¹⁸⁵ See *ibid.* The “cost” referenced here is much more than the cost of purchasing and learning new systems. If an individual or company’s data (e.g., word processing documents, financial records, presentations, photographs, etc.) is tied to the initial TC system and cannot be easily extracted for use in another system, or if it cannot be extracted at all, then the cost of switching to another system is not easily quantified. As anyone who has lost a laptop computer will attest, the real “cost” is not merely the cost of the equipment but more importantly the lost data. The underlying data has tremendous value to individuals and companies. By tying such data to a TC system, the data can be leveraged by TC providers in an attempt to retain customers.

inhibit entry. In some cases, we might want to consider whether consumer welfare is best served by having the industry settle on a single standard or by encouraging the development of multiple competing standards.¹⁸⁶

In a related way, the Bureau could monitor and provide input in situations where copyright holders seek to have regulators mandate design requirements for information technology and electronic devices to suit the interests of copyright holders. This has been a recurring phenomenon in the United States that is now appearing in Canada.¹⁸⁷ If adopted, such interventionist government-mandated technology design could have disastrous effects on innovation and competition. Such mandates should be rejected on competition grounds for the same reason that anti-device provisions should be avoided in the *Copyright Act*.

F. International Advocacy

[W]e [the private sector] respectfully urge that the [International Competition Network] ... initiate a competition/intellectual property working group to examine core issues such as the legal standard for monopolization and abuse ...

James F. Rill¹⁸⁸

Competition regulation is increasingly a global issue and nowhere is this felt more than in the case of the exercise and exploitation of intellectual property rights. This is particularly true in light of increased harmonization of copyright laws around the world.

Canada has been an active leader in international competition organizations and should continue in that role. Canada can also learn from the experience of competition authorities in other countries. Although Canada has not yet studied the interface between competition and intellectual property rights in detail, representatives from the Competition Bureau participated in extensive public hearings on the subject in the United States before the Federal Trade Commission and the U.S. Department of Justice in 2002. A number of the views expressed at those hearings by the Bureau have been identified in this article and could form the basis for further consultations on copyright reform in Canada. More recently, the

¹⁸⁶ Charles A. James, Assistant Attorney General, Antitrust Division, U.S. Department of Justice (Comments made at the Joint DOJ-FTC Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy, 6 February 2002), online: U.S. Department of Justice <<http://www.usdoj.gov/atr/public/speeches/10162.pdf>>.

¹⁸⁷ See e.g. Jonathan L. Rubin, "AAI Research Fellow Jonathan Rubin Explains Anticompetitive Issues in Broadcast Flag Op-Ed, Reprinted from FTC: WATCH" (23 October 2003), online: American Antitrust Institute <<http://www.antitrustinstitute.org/Archives/279.ashx>>; CRIA Satellite Submissions, *supra* note 65.

¹⁸⁸ "International Competition Network: The Perspective of Non-Governmental Advisors" (2002), online: International Competition Network <http://www.internationalcompetitionnetwork.org/media/archive0611/rill_icn_naples_speech.pdf>.

commissioner of competition participated in the first formal trilateral meeting between the competition authorities of Canada, the United States, and Mexico. Perhaps not surprisingly, the commissioner reported that one of the topics discussed was intellectual property:

We also discussed another important driver of productivity and competitiveness in our respective economies, innovation, in the context of the interface between competition policy and intellectual property. It is my view that the links between competition and innovation need to be better examined.¹⁸⁹

Harmonization of domestic competition laws and possibly the establishment of an international intellectual property competition authority are two possible ways to mitigate competition issues that arise in connection with the global exploitation of intellectual property.¹⁹⁰ Such measures could be considered consistent with, or a natural reaction to, the recent trend toward increased harmonization of intellectual property laws around the world.¹⁹¹ Given that the objectives of competition and intellectual property are similar, and that the harmonization of intellectual property is increasingly being tied to international trade agreements, competition law might follow suit to ensure that its objectives are promoted in the same way that intellectual property is attempting to promote its objectives. In other words, competition law might take a lesson from copyright when it comes to ensuring that its objectives are achieved in a global economy.¹⁹²

Some might argue that these are extreme ways to address competition issues in connection with international exploitation of intellectual property. However, Canada could consider these options and share the experience, knowledge, and expertise in dealing with copyright that it may develop in connection with future copyright

¹⁸⁹ Scott, “Opening Remarks”, *supra* note 152.

¹⁹⁰ See e.g. *ibid.*

¹⁹¹ See Kim Nayyer, “Globalization of Information: Intellectual Property Law Implications” (2002) 7:1 *First Monday*, online: *First Monday* <http://firstmonday.org/issues/issue7_1/nayyer/index.html>.

¹⁹² In the international context, it is worth noting that the OECD, in part because of the efforts of the Bureau at the OECD Competition Committee, held a roundtable in October 2006 on “Patents, Competition and Innovation”. See OECD, *Compendium of OECD Work on INTELLECTUAL PROPERTY (IP)* (2007) at 7-8, online: OECD <<http://www.oecd.org/dataoecd/60/1/34305040.pdf>>; Scott, “Opening Remarks”, *supra* note 152. See also Hanns Ullrich, “Competition, Intellectual Property Rights and the Transfer of Technology: Issues for Further Discussions in View of UNCTAD X” in “The Role of Competition Policy For Development in Globalizing World Markets” (Paper presented at the Pre-UNCTAD X Seminar, U.N. Conference on Trade and Development, Geneva, 14-15 June 1999) 39, online: U.N. Conference on Trade and Development <<http://www.unctad.org/en/docs/poitcdclpm14.en.pdf>> (“It is time for the establishment of a truly international system of competition law. Intellectual property is exploited internationally, and my last examples have pointed to the conflicts that may arise if antitrust law is enforced on a territorial basis only” at 46); Keith E. Maskus, “Regulatory Standards in the WTO: Comparing Intellectual Property Rights with Competition Policy, Environmental Protection, and Core Labor Standards” (2000) 1 *World Trade Review* 135.

reform. Competition authorities in many other countries are or will soon be faced with competition issues arising from DRM and anticircumvention laws.

Conclusion

Copyright and competition policy share a close relationship and related objectives. This relationship is challenged by copyright holders' emerging DRM technologies, the contracting practices that they enable, and a new breed of "copyright" law—anticircumvention and anti-device legal protections for TPMs and DRM. These elements spawn a number of implications and unintended consequences for Canadian competition policy.

At a general level, this article has asserted that copyright holders can exercise a much greater degree of control over creative works using DRM technology and contracts, particularly when such practices are protected by anticircumvention and anti-device laws. Through the use of DRM and contracts to control access to and use of copyright works, the interests of copyright holders, individuals, and society at large can come to be defined by private contractual ordering rather than by copyright law. This article has argued that this private reordering of copyright interests by copyright holders may in itself suggest that Canadian competition policy needs reassessing, particularly in light of possible legal protections for such practices and the complementary objectives of copyright and competition law.

This article has also asserted that further evidence of the competition policy implications arising from DRM, contracts, and anticircumvention and anti-device laws is found in the increased costs to consumers resulting from those elements—costs that include financial costs for traditionally free access and use; costs of engaging in legitimate circumvention; costs in the form of increased legal risk under anticircumvention laws and contracts; indirect costs when DRM weakens computer security; and, finally, broader costs in the form of reduced access, use, and dissemination of copyright works, and ultimately potentially less new innovation resulting from creators' and others' reluctance or inability to incur the cost of circumvention. These costs can result in economic inefficiencies and can shift a disproportionate share of total innovation benefits from individuals and the public at large to copyright owners. Over the long term, these costs may cause innovation to suffer further by decreasing the amount of practically and efficiently accessible and utilizable innovation upon which further innovation depends.

This article has also identified a number of the ways that anticircumvention and anti-device provisions do not appear to fit under copyright's traditional "bundle of rights", leading some to characterize such provisions as "paracopyright". As explained in Part III.B, the character of anticircumvention and anti-device provisions, along with the issue of whether the use of DRM and contracts (particularly in the area of fair dealing) amount to an exercise of an intellectual property right, has implications for the potential application of the *Competition Act*. To address these implications, possible legislative reform of the *Competition Act* was discussed in Part IV.C.

Rounding out the competition law and policy implications discussed, this article has examined the ways that DRM, contracts, and anticircumvention laws can contribute to problems in the area of tied selling, abuses and anticompetitive practices, security research, and product labelling and deceptive marketing practices.

This article has asserted that possible changes to Canadian copyright law that would protect TPMs and DRM and the contracting practices under them should be critically assessed from a competition law perspective. To this end, this article has suggested that Canada’s competition authority should consider escalating its domestic and international advocacy on issues of competition and intellectual property. In the domestic context specifically, there are a number of concrete ways that the Competition Bureau can infuse competition policy into copyright reform. The Bureau’s involvement in the reform process is critical. These measures, along with appropriate enforcement, reform to the *Competition Act*, and ongoing awareness about DRM technology development, are necessary to ensure that copyright responds to competition law in appropriate cases and that Canada maintains competition policy objectives in the face of new technological developments and possible copyright law reform.
