30 Days of DRM

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INTRODUCTION

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http://www.michaelgeist.ca/content/view/1367/125/

Many people are still in summer mode, but the Canadian copyright rumour mill suggests that there is a lot happening behind the scenes with a copyright bill quite possibly a top priority once the fall session begins in 31 days. While there was much to criticize about Bill C-60 (the last attempt at copyright reform), given the continuing pressure from the copyright lobby and the U.S. government, I fear that the Conservatives' bill may be far more extreme in its approach.

Despite the negative experiences with the U.S. DMCA as well as the recent calls against anti-circumvention legislation from musicians, artists, security companies, librarians, and the privacy community, within the next couple of months Canada may be facing its own DMCA. I remain strongly against such an approach. We do not need anti-circumvention legislation. If the copyright lobby wins out, however, the Bill C-60 approach was clearly preferable to the U.S. DMCA which bans devices that can be used circumvent technological protection measures and establishes only a small list of exceptions to a general rule of no circumvention. If the Bill C-60 approach is rejected by the current government, the debate must inevitably turn to the dozens of exceptions that will be needed to avoid "unintended consequences" and to provide a plausible argument that the bill passes constitutional muster.

Starting tomorrow, I plan to spend the thirty days before the House of Commons reconvenes to highlight some of the exceptions and limitations that should be included in the event that a Canadian DMCA is introduced. Each day, I will post a new provision, focusing broadly on marketplace concerns, public protection, and fair circumvention. The postings will be collected on a single page to form a compilation of DRM policy issues. Moreover, I'm launching a wiki that will start with the postings and will hopefully grow as interested readers add examples and additional perspectives.

We should be working on a positive copyright agenda that includes an expanded fair dealing provision, reform to the statutory damages provision, the elimination of crown copyright, and protection from DRM. Instead, given the strength of the copyright lobby, we may need protection from the next copyright bill. The 30 Days of DRM page and the associated wiki will seek to provide a starting point for the kinds of protections politicians and policy makers should be contemplating.

MARKETS

Day 01: Linking Copyright and Anti-Circumvention (Markets)
http://www.michaelgeist.ca/content/view/1369/125/

I need to begin day one with a couple of introductory issues for those new to copyright reform. When I speak of a Canadian DMCA, I am focused chiefly on anti-circumvention legislation. The forthcoming bill will likely contain many other provisions (few of which will address the needs of users and many creators) but it is the anti-circumvention provisions that will likely prove to be the most contentious.

So what are anti-circumvention provisions? They are provisions that grant legal protection to technological protection measures (TPMs). In plainer English, traditional copyright law grants creators a basket of exclusive rights in their work. TPMs or digital locks (such as anti-copying technologies on CDs) effectively provide a second layer of protection by making it difficult for most people to copy works in digital format. Anti-circumvention legislation creates a third layer of protection by making it an infringement to simply pick or break the digital lock (in fact, it even goes further by making it an infringement to make available tools or devices that can be used to pick the digital lock). Under the DMCA, it is an infringement to circumvent a TPM even if the intended use of the underlying work would not constitute traditional copyright infringement.

This broad legal protection for TPMs has raised numerous issues over the past eight years.
Perhaps the most obvious problem has been the use of these legal provisions in cases that have nothing to do with copyright. The U.S. has been home to a litany of cases involving the DMCA and garage door openers (which involved Canadian-based Skylink), printer cartridge refills, hardware backups, and cell phones. None of these cases involved attempts to stop copyright infringement. Rather, they were fundamentally about exerting greater market control by thwarting potential competitors and reducing innovation. For example, in the Skylink case, Chamberlain, a competitor in the garage door opener market, tried to stop Skylink from offering a universal garage door remote control. Chamberlain argued that Skylink needed to circumvent its TPM in order for its remote to function and that this constituted a violation of the DMCA. While some of the cases have ultimately been dismissed (including, after several appeals, the Skylink case), the mere threat of a lawsuit is frequently enough to dissuade many companies from entering the market or from developing an innovative new product.

Canada can ill-afford to follow the U.S. lead by leaving doubt as to whether anti-circumvention provisions apply outside the realm of copyright. To do so would pose a threat to Canadian innovation and create significant competition law concerns. Moreover, it would subject the Canadian law to constitutional challenge, since the federal government would be encroaching on provincial property rights, rather than addressing copyright. Accordingly, any anti-circumvention provision must be linked directly to copyright. For more on these issues, see my article on the competition concerns of DRM, Jeremy deBeer's piece on the constitutional considerations, and the EFF's study on the unintended consequences of the DMCA.

Day 02: Region Coding (Markets)
http://www.michaelgeist.ca/content/view/1370/125/

DVDs are a good example of a consumer product that contains several types of TPMs. Many DVDs include Macrovision (designed to stop copying a DVD to VHS), Content Scramble System or CSS (the subject of important litigation involving DeCSS, a software program created to allow Linux users to play

DVDs since they were otherwise unable to do so due to CSS), and region coding. I think the region coding issue is of particular concern and should be the subject of a specific exception within anti-circumvention legislation.

The premise behind region coding is fairly straightforward. With DVD region coding, the world is divided into eight regions (Canada and the U.S. form Region One). Consumer electronics manufacturers have agreed to respect region coding within their products by ensuring that DVD players only play DVDs from a single region. The net effect is that Canadian-purchased DVDs will play on Canadian-bought DVD players, but DVDs purchased in Europe, Australia, or Asia (all different regions), are unlikely to work on those same DVD players (with the exception of those DVDs that are region coded zero, which can be played worldwide). The is also true for playing the DVDs on a personal computer - my Macintosh will only allow a limited number of region changes.

Note that the use of region coding has nothing to do with traditional notions of copyright law. The underlying work may involve a copyrighted work - DVDs and video games regularly use region coding - yet the protection is designed to manipulate markets by restricting the ability to use fully authorized copies of works.

The region coding issue is particularly acute in Australia, which has a different region code from Asia or Europe and thus is susceptible to price discrimination on certain digital products. In fact, the Australian parliamentary committee reviewing DRM exceptions recommended that region coding not receive legal protection, concluding that:

"arguments that region coding TPMs are an essential tool in preventing piracy, that they cannot be separated from other varieties of TPM, and that they are actually copyright protection because they inhibit the possibility of infringement, are not at all persuasive."

Canadians should not be lulled into thinking that they are immune from region coding problems just because we share a region code with the United States. Canadians who purchase DVDs, video games or other region coded products while abroad will find that they do not work when they get home. Region coding is also showing signs of moving beyond the entertainment industry. For example, HP has experimented with region coding in their printer cartridges, restricting the ability to purchase a printer ink cartridge in one region to be used with a printer in another region.

Region coding is not about copyright; it is about market controls and a loss of consumer property rights. It should not benefit from additional copyright legal protections that would come from anti-circumvention legislation.

Day 03: Oversight of DRM Misuse (Markets)

http://www.michaelgeist.ca/content/view/1374/125/

Today's installment focuses on the need for an amendment to the Competition Act should Canada introduce anti-circumvention legislation. The Act should be amended to ensure that the Competition Bureau is not restricted in its ability to bring actions against abusive behaviour stemming from the application of an anti-circumvention provision.

This argument is a bit technical, but important.
The background is that courts in the United States have adopted the principle of copyright misuse, which is an equitable defence in infringement cases where the plaintiff's actions have expanded their copyright past the statutory limits (i.e. anticompetitive acts). The doctrine was "created to address situations in

which the owner of an intellectual property right used his or her legal monopoly to create such an asymmetry in the balance of rights that courts refused to enforce the normal intellectual property rights."

The 1990 4th Circuit Court of Appeals decision in Lasercomb America Inc. v. Reynolds provides a good illustration of the doctrine's application. The plaintiff, Lasercomb, developed and licensed software used to form steel dies for the paper industry. It licensed four copies of the software to Reynolds, who circumvented the protective devices and made an additional three unlicensed copies. There was no dispute that Reynolds had infringed copyright, but it argued that Lasercomb was barred for recovery from the infringement because it included a clause in its software license that prevented the licensee from developing competing software for 100 years. The court agreed, ruling that "a misuse of copyright defense is inherent in the law of copyright just as misuse of patent defense is inherent in patent law." In fact, the court's analysis indicated that copyright owners were prohibited from using their grant of a monopoly in a particular work to obtain a monopoly in a subject matter outside the rights associated with the copyright.

While Canadian courts have yet to adopt the doctrine of copyright misuse, similar principles are found in Section 32 of the Competition Act. The section provides that the Competition Bureau has the right to act where an intellectual property right, including a copyright, is used 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 Competition Bureau's powers are offset, however, by Section 79(5) of the Competition Act, which address abuses of dominant position. It provides that:

> *"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."*

In light of this provision, the Competition Tribunal has been very reluctant to tamper with intellectual property agreements.

Why is this relevant to anti-circumvention legislation? The experience with TPMs in other jurisdictions, as illustrated by the discussion over the past two days, provides a compelling case for an engaged, active Competition Bureau as the technology is inserted into ever-more products and services. The potential for DRM misuse is very real, yet if anti-circumvention provisions are included in the Copyright Act, the Bureau may precluded from acting to address anti-competitive activity by virtue of its own statute which deems such behaviour a mere exercise of an IP right and not anti-competitive. If the Competition Bureau is unable to act, there will be little to prevent owners of intellectual property right from using their legal monopoly to create additional monopolies or to engage in anti-competitive behaviour. Without a legal principle to mitigate against abuse, Canada would be open to the prospect for even greater abuse of anti-circumvention provisions than that found in the United States. To ensure that the Competition Bureau can

act, a statutory exception is needed to clarify that Section 79(5) would not apply to anti-circumvention provisions.

For more on these issues, see my article on Anti-Circumvention and Canadian competition law, Neal Hartzog's article on the U.S. copyright misuse doctrine, and Dan Burk on anti-circumvention misuse.

Day 04: DRM Misuse Sanctions (Markets)
http://www.michaelgeist.ca/content/view/1376/125/

Yesterday's posting focused on the role that the Competition Bureau should play in addressing DRM misuse. While that role is an important one, it is by no means sufficient to address the misuse problem. The Bureau will undoubtedly be hampered by inadequate resources, institutional bias against taking "risky" cases, and statutory limitations that constrict its role to abuse of dominance cases. Therefore, in addition to Bureau oversight, the law should contain provisions that establish strong disincentives to overreaching or abusive use of DRMs.

Last fall's Sony rootkit case, in which Sony placed hundreds of thousands of personal computers at risk for viruses and other security breaches by surreptitiously placing DRM on dozens of its music CDs, is a model illustration of the havoc that DRM misuse can generate. While the Sony case is not an abuse of dominant position case, there are good policy reasons to create disincentives to ensure that overzealous companies will not misuse DRM.

Several potential disincentives come to mind.
The toughest would be forfeiture of the copyright protection associated with the underlying work. This solution has been raised by several people, including Judge Richard Posner (who discussed copyright overreaching as a form of misuse that could lead to forfeiture), Howard Knopf, and the Foundation for Information Policy Research. While unquestionably a strong penal measure, it would provide a counter to the incentive to use DRM created by anti-circumvention legislation. Alternatively, a somewhat less penal approach, advocated by the Library and Archives Copyright Alliance (LACA) in the UK, would be to suspend the copyrights for as long as the abusive conduct remains in effect.

In addition to the threat of a loss of copyright protection, tougher damage penalties for DRM misuse may be in order. LACA calls for the inclusion of DRM misuse within the UK's Computer Misuse Act. An equivalent in Canada would be an expansion of the hacker provisions under Section 342.1 of Canada's Criminal Code, which already covers unauthorized use of a computer service. Since prosecutions for DRM misuse are unlikely, a more effective approach might be to expand the statutory provisions within the Copyright Act to cover copyright misuse. Section 38.1 currently allows copyright owners to elect to receive tens of thousands of dollars in statutory damages without the need to prove any actual damages. Expanding the provision to enable victims of copyright misuse to make a similar choice would provide some much-needed balance to this abusive provision and establish a strong disincentive to DRM misuse.

PUBLIC PROTECTION

Day 05: DRM Labelling and Consumer Awareness (Public Protection)
http://www.michaelgeist.ca/content/view/1378/125/

If government is to incentivize the use of DRM by enacting anti-circumvention legislation, it must also address the significant consumer protection issues that are likely to follow. Most consumers know little if anything about DRMs and the limitations that may be placed on consumer entertainment products such as CDs, DVDs, video games, or digital download services. While there may some limited disclosures - DVDs indicate the region code, if your eyesight is good enough you might notice that some copy-controlled CDs warn on the back corner that they may not play on all computers, and digital download services all feature lengthy user agreements that few consumers will ever read - they are plainly insufficient and the government should not support the legal fiction that "informed" consumers are knowingly purchasing products that contain a host of limitations.

For many consumers, these DRM products are simply not fit for purpose - they often won't play on your DVD player, on your iPod, or permit usage that most would expect is permissible. Moreover, consumers frequently can't obtain a refund for their purchases as many retailers won't accept returns on opened CDs and DVDs and digital download services do not offer refunds to disgruntled downloaders.

The federal government might argue that this is provincial problem, since consumer protection issues typically fall under provincial jurisdiction. The reality, however, is that the federal government can and should play its part to address the issue.

First, it should consider establishing DRM labelling requirements (an approach also advocated by the Society for Law and Computers in the UK) so that consumers will be able to quickly identify capabilities, compatibilities, and limitations. The Competition Bureau is currently responsible for two labelling statutes - the Consumer Packaging and Labelling Act and the Textile Labelling Act. If labelling is required for upholstered furniture, surely it can be added for consumer entertainment products.

Second, the government should also add a consumer awareness and education campaign to support the labelling requirements and the legislative changes. To date, Canadian Heritage has focused its copyright awareness campaigns on greater "respect" for copyright. As is well documented, the private sector has produced campaigns such as Captain Copyright. Rather than these one-sided approaches, an awareness campaign on DRM labels and the limits created by technology is needed. Not only would this help to educate the Canadian public, but it would also help promote Canadian content and culture, since Canadian record labels, who are responsible for 90 percent of new Canadian music, have generally eschewed using DRM in their releases.

Day 06: Interoperability (Public Protection and Markets)
http://www.michaelgeist.ca/content/view/1383/125/

The interoperability problems associated with DRM have emerged over the past year as a focal point for debate with legislators and regulators in Europe beginning to intervene to address the issue. The interoperability concerns arise from the fact that DRM'd content is frequently linked to specific hardware, leaving consumers unable to transfer the content from device to device. For example, Apple iTunes uses a technology known as FairPlay to limit consumers ability to transfer songs that they have purchased to devices other than the iPod (as well as limit the number of copies and uses of the download), while

services such as Napster and Puretracks use a Microsoft-supported DRM system that will not play on an iPod. The end result is lock-in (literally) as consumers find themselves tied to a specific hardware device with the cost of switching now including the loss of their investment in new content.

Even the industry has begun to acknowledge the problem. It was much discussed at an OECD conference in Rome earlier this year and Yahoo! has expressed its frustration with DRM. Of course, those rejecting the DRM-based approach are finding great success - witness the Canadian music industry, where the large independent labels have left CRIA and largely avoid DRM, as well as eMusic, which offers "clean" MP3s, and has grown into the world's second biggest music download service.

Regulators have also become involved as concern over consumer fairness and marketplace competition mounts. France toyed with legislation earlier this year that would have mandated that Apple reveal technological specifications to its competitors so that they could design compatible devices. As a result, songs bought on iTunes would theoretically play on any digital music device. Officials in several Scandanavian countries are now examining similar concerns.

It is important to understand that this interoperability problem is not solely a product of DRM. Rather, it is the result of combining DRM with anti-circumvention legislation.
DRM on its own raises compatibility issues but it is a safe bet that competitors will be able to patch the problem by building tools that allow for compatibility. Once anti-circumvention legislation is added to the mix, the competitors are effectively locked out, since developing the compatibility tools will likely break the law.

How to address the problem? One possibility is the early French approach of mandating disclosures of technological specifications. That might help address the issue, but arguably interjects government regulation too far into mandating technical requirements. A better approach would be to establish a legal framework that guarantees the "freedom to tinker" such that competitors would be free to develop interoperable products without fear of legal liability. This would require an explicit exception to the anti-circumvention rules and conceivably a provision within the Competition Act to bolster that freedom by preventing abusive practices designed to establish unfair hurdles to interoperability.

Day 07: DRM-Free Library Deposits (Public Protection)

http://www.michaelgeist.ca/content/view/1386/195/

Legal deposit, first established in France in 1587, is a commonly used to preserve national heritage by mandating the collection of all published works. The National Library administered legal deposit in Canada from 1953 until 2004, when responsibility was assumed by the Library and Archives Canada. The LAC describes the obligation in the following manner:

Canadian publishers are required to send two copies of all the books, pamphlets, serial publications, microforms, spoken word sound recordings, videorecordings, electronic publications issued in physical formats, such as CD-ROM, CD-I, computer diskette, etc, and one copy of musical sound recordings and multi-media kits they publish, to LAC.

One copy of every publication, in any format, is stored in LAC's preservation collection, where it is kept in a carefully controlled environment and allowed limited use only. The objective is to ensure its availability for future generations.

The use of DRM represents a significant threat to the legal deposit program and by extension the preservation of our national culture. While the LAC may have physical copies of books, sound recordings, and other works, there is a substantial likelihood that those copies will not be available for future generations, who may find themselves literally locked out of their own heritage. Moreover, absent an exception in the law, circumvention by the library would itself constitute infringement. The solution is simple - the government should amend the Library and Archives Canada Act to provide that the deposit program requires submission of DRM-free copies of all works.

CIRCUMVENTION RIGHTS

Day 08: Privacy (Circumvention Rights)

http://www.michaelgeist.ca/content/view/1389/125/

Today's post kicks off the heart of the 30 Days of DRM series - circumvention rights. Circumvention rights are necessary since everyone agrees that an absolute anti-circumvention provision (i.e. circumvention prohibited in all circumstances) is unworkable. There are instances where such a prohibition would result in significant costs by precluding beneficial activities, creating "unintended consequences", and lead to significant harm to the public. Indeed, the DMCA itself includes several narrow exceptions to the general anti-circumvention rule.

The approach in Bill C-60 was to limit (the government believed eliminate) the need for circumvention rights by creating a direct link between circumvention and copyright. Bill C-60 only made it an offence to circumvent a technological measure for the purposes of copyright infringement. In other words, if you had another purpose - for example, protecting your personal privacy - the anti-circumvention provision would not be triggered.

If the new copyright bill adopts a U.S. style approach, then a crucial part of the discussion will be whether the government has identified all the necessary rights to limit the harms associated with anti-circumvention legislation. While these rights might be characterized by some as exceptions, I think they are more appropriately viewed as circumvention rights, analogous to the Supreme Court of Canada's emphasis on user rights.

Privacy protection is an obvious example of a circumvention right.
Copyright is important, but many would say that privacy protection should trump copyright considerations. There is clearly a need for a privacy circumvention right since failure to include it could result in companies collecting and user personal information with the public locked-out of the ability to stop such activity. PIPEDA, the federal privacy law, requires organizations to obtain consent for the use, collection, and disclosure of personal information, however given the law's weak remedies and the ease with which the public can end up contracting out of privacy rights, stronger protection is needed.

This issue has certainly captured the attention of the Canadian privacy community. Earlier this year, a group of privacy and civil liberties organizations and experts sent a public letter to the responsible ministers calling for assurances that:

1. any proposed copyright reforms will prioritize privacy protection by including a full privacy consultation and a full privacy impact assessment with the introduction of any copyright reform bill;
2. any proposed anti-circumvention provisions will create no negative privacy impact; and
3. any proposed copyright reforms will include pro-active privacy protections that, for example, enshrine the rights of Canadians to access and enjoy copyright works anonymously and in private.

That letter was supported by four of Canada's best known privacy commissioners who each wrote their own letters on the DRM privacy issue. They include Jennifer Stoddart, the Privacy Commissioner of Canada, Ontario Privacy Commissioner Ann Cavoukian, British Columbia Privacy Commissioner David Loukidelis, and Alberta Privacy Commissioner Frank Work. Intellectual Privacy also a background paper on this issue and Ian Kerr's excellent piece on privacy circumvention is highly recommended.

Day 09: Reverse Engineering (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1391/125/

The inclusion of a reverse engineering circumvention right is another obvious necessary provision. Reverse engineering is described by the Chilling Effects site as follows:

Reverse engineering is the scientific method of taking something apart in order to figure out how it works. Reverse engineering has been used by innovators to determine a product's structure in order to develop competing or interoperable products. Reverse engineering is also an invaluable teaching tool used by researchers, academics and students in many disciplines, who reverse engineer technology to discover, and learn from, its structure and design.

The need for a reverse engineering provision therefore follows from some of the discussion last week - it is pro-competitive as it facilitates the creation of compatible devices as well as greater competition in the marketplace.

While there may be general agreement on the need for a reverse engineering provision, it is essential that Canada avoid the U.S. DMCA approach, which has been widely criticized for being too limited in scope and thus woefully ineffective.

The DMCA allows software developers to circumvent TPMs of lawfully obtained computer programs, but in order to benefit from the provision, developers must seek permission first, must limit their activity strictly to interoperability, and cannot "traffic" in devices that would allow for circumvention (in other words, the tools need to circumvent may be unavailable). Moreover, the provision is limited solely to computer programs, thereby excluding TPMs associated with network protocols or hardware devices. The ineffectiveness of the reverse engineering provision has been borne out by caselaw - both the DeCSS case and the Blizzard case, which both involved interoperability issues, rejected attempts to use the DMCA's reverse engineering provision.

In addition to the need for a broadly worded circumvention right, Canadian copyright law would also benefit from an explicit right of reverse engineering. The act of reverse engineering may well be covered by fair dealing given the expansive approach adopted by the Supreme Court of Canada in the CCH decision, however, there remains some element of risk in relying solely on the fair dealing user right. To remove that innovation inhibiting risk, Canada should expand fair dealing so that the current categories are deemed illustrative rather than exhaustive or, alternatively, establish an explicit reverse engineering user right.

Not surprisingly, the reverse engineering issue has garnered attention from Canada's security industry. The Digital Security Coalition, comprised of some of Canada's leading digital security companies, has written a public letter to the Ministers of Industry and Canadian Heritage emphasizing the importance of reverse engineering. It warns against anti-circumvention legislation and calls for explicit protection for reverse engineering within the Copyright Act.

Day 10: Security Research (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1393/125/

Given the priority currently accorded to security concerns, it is difficult to understand how any government would be willing to undermine security in the name of copyright. That is precisely what has occurred in the United States, however, where computer security researchers have faced a significant

chilling effect on their research due to legal threats from the DMCA. The U.S. cases are fairly well known: they include Princeton professor Edward Felten facing a potential suit from the RIAA when he planned to disclose his research findings in identifying the weaknesses of an encryption program and Dmitri Sklyarov, a Russian software programmer, spending a summer in jail after presenting a paper at a conference in Las Vegas that described his company's program that defeated the encryption on the Adobe eReader.

Even more compelling are recent comments from Professor Felten at a conference at the University of Michigan. Felten told attendees that for every two hours he spends researching in the lab, he spends one hour with lawyers discussing what he can and cannot reveal in his research. Moreover, he advised that he has self-censored every research paper (with the exception of his work that brought the legal threats from the RIAA) and that he was aware of the Sony rootkit threat months before it was publicly disclosed but did not break that story due to legal concerns. In light of these events, Felten acknowledged that many potential security research scientists were choosing alternative career paths in order to avoid the legal hassles now associated with computer security research.

These same concerns were echoed in Canada in a 2005 letter from the Digital Security Coalition to the then-Ministers of Canadian Heritage and Industry. The letter noted that:

Understand that the science and business of digital security implicates the practical application of circumvention technologies. To understand security threats, researchers must understand security weaknesses. We are not in the business of circumventing technological safeguards for the purposes of exploiting the weaknesses we find; rather, we are in the businesses of finding and addressing those weaknesses.

Security weaknesses are best found - and addressed - when a variety of security researchers examine a platform or application. The odds of one party devising the best response to a security issue are slim; the likelihood of an optimal response improves significantly when a community of security researchers has the opportunity to examine and test a platform or application. Anti-circumvention laws throw a shroud of legal risk over that community, and dampen security research at the edges. Simply, anti-circumvention laws that provide for excessive control make for bad security policy.

Any new legislation must ensure that researchers and the companies typified by the Digital Security Coalition (which include Canadian leaders such as Third Brigade, Certicom, and Borderware Technologies) are free to conduct their work and to publish their results without fear of legal threats arising from anti-circumvention provisions. If Canada is to establish a U.S.-style DMCA, it must include an explicit circumvention right that covers security research (both the activity and its dissemination) in academic and commercial settings.

Day 11: Involuntary Installation of Software (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1396/125/

Yesterday's post addressed the negative impact of anti-circumvention legislation on security research. There is another security issue that merits discussion - the involuntary installation of software that may constitute a personal security threat to individual computer users. Such software is frequently classified as spyware - software programs that are placed on users' computers without their informed consent that proceed to cause havoc by compromising personal information, posing an identity theft risk, sending spam, and infecting other computers.

While spyware can worm its way onto a personal computer in many different ways, inclusion within a DRM is a possibility. The best-known example of the DRM-spyware connection is last year's Sony rootkit fiasco.

The Sony case started innocently enough with a Halloween-day blog posting by Mark Russinovich, an intrepid computer security researcher. Russinovich discovered his own tale of horror - Sony was using a copy-protection TPM on some of its CDs that quietly installed a software program known as a "rootkit" on users' computers. The use of the rootkit set off alarm bells for Russinovich, who immediately identified it as a potential security risk since hackers and virus writers frequently exploit such programs to turn personal computers into "zombies" that can send millions of spam messages, steal personal information, or launch denial of service attacks. Moreover, attempts to uninstall the program proved difficult, as either his CD-Rom drive was no longer recognized or his computer crashed.

While Sony and the normally vocal recording industry associations stood largely silent - a company executive dismissed the concerns stating that "most people don't even know what a rootkit is, so why should they care about it" - the repercussions escalated daily. There were dozens of affected CDs, including releases from Canadian artists Celine Dion and Our Lady Peace. Class action lawsuits were launched in the United States and Canada, a criminal investigation began in Italy, and anti-spyware companies gradually updated their programs to include the Sony rootkit. Researchers estimated that the damaging program had infected at least 500,000 computers in 165 countries.

The Sony case provides a vivid illustration of how TPMs can create real security and privacy risks. The U.S. Computer Emergency Response Team, which was jointly established in 2003 by the U.S. government and the private sector to protect the Internet infrastructure from cyber-attacks, advised users that they should not "install software from sources that you do not expect to contain software, such as an audio CD." Moreover, Stewart Baker, the U.S. Department of Homeland Security's assistant secretary of policy, admonished the music industry, reminding them that "it's very important to remember that it's your intellectual property - it's not your computer. And in the pursuit of protection of intellectual property, it's important not to defeat or undermine the security measures that people need to adopt in these days."

Baker is right, but governments that enact anti-circumvention legislation must share in the blame. Not only do these policies encourage DRM use, but they also pose a security threat since the simple act of circumventing a TPM to stop DRM-supported spyware on a personal computer may violate the law. It should be beyond doubt that people should have the right to circumvent to protect their own personal security against software that is installed involuntarily without their informed consent. Indeed, the Australian parliamentary committee investigating TPM exceptions reached the same conclusion, recommending an exception for "circumvention for software installed involuntarily or without acceptance, or where the user has no awareness a TPM or no reasonable control over the presence of a TPM." Canadians deserve no less.

Day 12: Research and Private Study (Circumvention Rights)

http://www.michaelgeist.ca/content/view/1399/125/

Section 29 of the Copyright Act contains one of the most important user rights in Canadian copyright law - *fair dealing for the purpose of research or private study does not infringe copyright*. For many years, this provision was narrowly defined such that the education and library communities adopted relatively conservative approaches to defining what constituted fair dealing. In recent years, however, Canada has experienced a dramatic shift in the vibrance and importance of fair dealing. In a trio of cases, the Supreme

Court of Canada strongly affirmed the need for balance in Canadian copyright law. The shift began in the Theberge, where Justice Binnie, in discussing the copyright balance, stated that:

The proper balance among these and other public policy objectives lies not only in recognizing the creator's rights but in giving due weight to their limited nature. In crassly economic terms it would be as inefficient to overcompensate artists and authors for the right of reproduction as it would be self-defeating to undercompensate them. Once an authorized copy of a work is sold to a member of the public, it is generally for the purchaser, not the author, to determine what happens to it.

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. This is reflected in the exceptions to copyright infringement enumerated in ss. 29 to 32.2, which seek to protect the public domain in traditional ways such as fair dealing for the purpose of criticism or review and to add new protections to reflect new technology, such as limited computer program reproduction and "ephemeral recordings" in connection with live performances.

Having affirmed the need for balance in Canadian copyright, a unanimous Supreme Court then proceeded to elevate the importance associated with the exceptions to copyright infringement in the CCH Canadian v. LSUC by describing them as user rights. Justice McLachlin stated:

the fair dealing exception is perhaps more properly understood as an integral part of the Copyright Act than simply a defence. Any act falling within the fair dealing exception will not be an infringement of copyright. The fair dealing exception, like other exceptions in the Copyright Act, is a user's right. In order to maintain the proper balance between the rights of a copyright owner and users' interests, it must not be interpreted restrictively.

Moreover:

The fair dealing exception under s. 29 is open to those who can show that their dealings with a copyrighted work were for the purpose of research or private study. "Research" must be given a large and liberal interpretation in order to ensure that users' rights are not unduly constrained. I agree with the Court of Appeal that research is not limited to non-commercial or private contexts.

With copyright balance and the importance of user rights established beyond doubt, the creation of anti-circumvention legislation that fails to adequately preserve that balance, including user rights, should properly be seen as directly undermining the very foundation of copyright law in Canada. Bill C-60 sought to maintain that balance by linking circumvention to copyright infringement, so that someone who circumvented a TPM could argue that they did not do so for the purpose of copyright infringement if their intended purpose was covered by fair dealing.

If Canada moves toward a U.S. DMCA-style approach, however, circumventing a TPM for research and private study would constitute infringement. Indeed, U.S. cases such as RealNetworks v. Streambox leave little doubt that fair use (the U.S. equivalent to Canada's fair dealing) can be eliminated through an anti-circumvention provision. In doing so, it would, in the words of the Chief Justice, unduly constrain user rights (not to mention harm federal-provincial relations given that education is a provincial matter). Accordingly, a specific circumvention right for research and private study as covered by the fair dealing provision will be needed to preserve a right that Canada's highest court has described as an "integral part of the Copyright Act."

Day 13: Criticism, Review and News Reporting (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1401/125/

Yesterday's posting covered the research and private study side of fair dealing. The other major component of the fair dealing user right is contained at Sections 29.1 and 29.2 of the Copyright Act, covering criticism, review, and news reporting. Both sections permit fair dealing in a work for those purposes provided that the source is identified. These user rights are equally an integral part of the Copyright Act and should not be unduly constrained.

Indeed, with the emergence of citizen journalism and user generated content, these rights have assumed even greater importance. As I wrote earlier this year, we are all journalists now. The ability for anyone to use new electronic tools to engage in criticism, review, or news reporting must be fully protected. An anti-circumvention provision would impede that ability since public commentary could effectively be locked out. For example, consider the recent online firestorm over a CBC National report on Prime Minister Harper and his response to protesters at a Conservative party meeting in Cornwall, Ontario. Stephen Taylor, a Canadian blogger, compiled a video that included the actual report and the broader context to illustrate how the report left an inaccurate impression. This was an important report that needed to be brought to the public's attention (and which resulted in an expression of regret from the CBC). In a world with anti-circumvention legislation and the prospect that the news coverage could be controlled by a TPM (the broadcast industry continues to push for the broadcast flag and other potential controls), this form of reporting would be nearly impossible to do legally since Taylor would need to circumvent the TPM in order to create his video. Mainstream news organizations, who have remained silent on the anti-circumvention issue, could face the same constraints.

Criticism, review, and news reporting are pillars of a democracy and must surely enjoy full protection. In order to do so, a specific circumvention right for criticism, review, and news reporting as covered by the fair dealing provision is an absolute necessity.

Day 14: Private Copying (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1404/125/

Several postings have noted that Bill C-60, the last failed attempt at copyright reform, sought to link anti-circumvention with copyright infringement by only making it an infringement to circumvent for the purposes of copyright infringement (thereby preserving user rights such as fair dealing). There was a notable exception, however - private copying. By excluding private copying, the bill made it an offence to circumvent a TPM (such as a copy-control on a CD) even if the purpose of the circumvention was to make a private copy. The rationale behind the exclusion was that the private copying system is designed to be compensatory, with the rate reflecting the amount of copying that is actually occurring in the marketplace. Supporters of the private copying exclusion argue that if copy-controls become pervasive, the amount of private copying will decline and so will the private copying levy.

This is pure fiction.

So long as the private copying levy remains in place, the provision creates a right (as described by the Canadian Private Copying Collective) to make personal, non-commercial copies of sound recordings and anti-circumvention legislation should not be used to take away those rights. In the event of widespread DRM use, Canadians will undoubtedly still be left footing the private copying bill for many years as the Copyright Board seems intent on mediating the levy process by striking rates somewhere between competing proposals and the CPCC is unlikely to give up on the levy (indeed, the CPCC has

acknowledged that even the levy on cassette tapes is unlikely to go away even though hardly anyone uses them to copy music). This week's release of a CPCC survey, which implausibly suggests that Canadians are comfortable with levy rates that comprise more than half of the retail sales price of blank CDs, serves to reinforce the absurdity of the current system where Canadians pay tens of millions in levy fees, yet cannot even copy music onto their iPods or avoid being wrongly labelled as pirates by the recording industry.

I have some sympathies for alternative compensation systems such as the private copying levy. However, the reality today is that the system is not working. To simultaneously collect on the levy while blocking the right to make personal copies on CDs through a combination of copy-controls and anti-circumvention legislation is simply wrong. While the best course of action is to either fix or drop the private copying levy system, in the meantime, anti-circumvention legislation should include a private copying circumvention right that allows Canadians to make the personal copies for which they have already paid.

Day 15: Artistic Access (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1405/125/

The copyright lobby frequently characterizes the use of DRM and anti-circumvention legislation as benefiting creators. Contrary to the rhetoric, however, a growing number of creators actively oppose DRM and the prospect of anti-circumvention legislation. The Canadian Music Creators Coalition justifiably generated enormous attention last spring when dozens of Canada's leading musicians came together to form a new coalition opposed to suing fans, using DRM, or establishing anti-circumvention legislation. The Appropriation Art coalition, launched soon afterward, may have less notoriety but they combine to form a powerful voice. Consisting of more than 600 artists, curators, directors, educators, writers, associations and organizations from the art sector, the coalition features artists that have collectively won dozens of major awards including eight Governor General Awards in Visual and Media Arts.

Despite these credentials, the group incredibly received little more than a form letter from Bev Oda, the Minister of Canadian Heritage. Perhaps that is because the Appropriation Arts coalition tells a much different story from the copyright lobby.
As actual artists, their concerns are with a copyright law that provides insufficient "certainty of access." In a public letter to the Ministers, they argued that:

Creators should enjoy the support of the law, and not have to work under conditions of uncertainty. The work we speak of here does not compete with that of its subject, nor does the value of this work derive from the value of its subject. The time has come for the Canadian government to consider replacing fair dealing with a broader defense, such as fair use, that will offer artists the certainty they require to create.

On the matter of anti-circumvention legislation, they believe that:

The law should not outlaw otherwise legal dealings with copyrighted works merely because a digital lock has been used. The artists we represent work with a contemporary palette, using new technology. They work from within popular culture, using material from movies and popular music. Contemporary culture should not be immune to critical commentary.

The current copyright system does not provide thousands of Canadian artists with the rights they need. There are several potential solutions including an expanded fair dealing right and the addition of a parody user right. Once the issue is addressed, the certainty of access should not be taken away through anti-

circumvention legislation. Artists require access in analog and digital worlds and therefore a circumvention right of artistic access is needed.

Day 16: System Repair (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1407/125/

With news this week of a Canadian settlement of the Sony rootkit case, it is worth revisiting the admonishment that case elicited from Stewart Baker, the U.S. Department of Homeland Security's assistant secretary of policy. As noted earlier this series, Baker reminded the recording industry that "it's very important to remember that it's your intellectual property - it's not your computer. And in the pursuit of protection of intellectual property, it's important not to defeat or undermine the security measures that people need to adopt in these days."

Baker's focus was on keeping personal computers secure. There is another related concern associated with DRM and personal computers - taking steps to avoid system damage or malfunction as well as repairing products that have suffered damage from DRM. These unintended consequences are an inevitable result of widespread DRM use. There are dozens of DRM products and there will be instances of harm to some computer systems (computer systems broadly defined to include personal computers, handheld devices, DVD players, and other similar products). Canadians must surely have the right to protect and repair their personal computers, whose value far outweighs the cost of the product that can be the source of harm or damage. Consistent with a recommendation by the Australian Parliamentary review committee, Canadian anti-circumvention legislation should include a right to circumvent to avoid damage or malfunction, as well as to repair, computer systems.

Day 17: Broken or Obsolete Technology (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1408/125/

The inclusion of a right to circumvent in the event that the TPM breaks or becomes obsolete is relatively uncontroversial. The U.S. Registrar of Copyrights has included a specific exception for this situation since 2000 and the Australian Parliamentary Review Committee recommended the inclusion of such an exception this year. The exception reflects the recognition that the continual evolution of technology places the investment that consumers make in entertainment and software products at risk in the event that a TPM ceases to function or becomes obsolete. While products do not come with a guarantee to function forever, the law should not impair consumers who seek to circumvent technologies that are no longer supported and thus create a significant barrier to access to their own property.

The current DVD market provides a good illustration of the potential problem. DVDs have become a huge consumer success story with millions of people accumulating large libraries of favourite movies and telephone shows. As the industry introduces next-generation DVD technologies (Blu-Ray, HD DVD, HVD), the prospect that the current DVD libraries might one day become obsolete becomes a distinct possibility (Blu-Ray manufacturers can include backwards compatibility, but are not required to do so). In future years, consumers with a DVD that contains an obscure TPM could easily find themselves unable to access the content for which they have already paid. Unlocking that content will therefore become necessary and consumers should have the right to do so without fear of breaking the law.

Rather than adopting the DMCA approach - which did not include the right within the statute itself but rather added it during the Registrar of Copyrights tri-annual review - Canada should ensure that this circumvention right is included within the law from day one.

Day 18: Backup Copies of Software (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1412/125/

As part of a major set of copyright reforms in 1988, Canadian copyright law was amended to allow for the making of backup copies of computer programs. Section 30.6(b), the backup copy provision, is quite narrow, permitting the making of a single backup copy of a computer program "for a person who owns a copy of the computer program," provided that the copy is for backup purposes only and that it is destroyed "immediately when the person ceases to be the owner of the copy of the computer program."

This provision, which has not been tested in the courts, raises the interesting question of whether owning a copy of the computer program refers to owning the copyright in the computer program or owning the physical copy of the computer program. Many commentators believe that it refers to copyright ownership, in which case the provision is relatively meaningless given that most consumer software is licensed and not owned (although the enforceability of licenses that prohibit backup copies would make for an interesting test case).

The provision would be far more useful (and make much more sense) with the latter interpretation, however. Physical copies of computer data are invariably frail - hard drives crash, CDs become scratched, and data gets corrupted - creating a real need for the right to make a backup to preserve the software program from loss. As part of the copyright reform process, this section should be clarified such that it removes any doubt that consumers have a positive right to make a backup copy of their computer programs and that those rights cannot be waived in the software licensing terms.

There is also a TPM dimension with the backup provision since TPMs can be used to block the ability to make a backup copy, even where the user has the right to do so under the Copyright Act. This issue was just raised by the Australian Attorney General, who is consulting this month on whether to add an exception for the making of backup copies of computer programs. Given the current state of Canadian law, there should be no doubt that a circumvention right to make a backup copy of a computer program is needed.

Day 19: Backup Copies of Digital Consumer Products (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1414/125/

Copyright reform is frequently characterized as "modernizing outdated copyright laws" (*e.g.* see yesterday's excellent Ottawa Citizen's masthead editorial). Leaving aside the fact that Canadian copyright law has undergone two major revisions in less than 20 years (along with several smaller changes), the reality is that the modernization is almost entirely focused on the interests' of a select few industries. Consider the issue of backup copies. Yesterday's post addressed a right of circumvention for backup copies of software, reflecting the need to preserve provisions in the Copyright Act that are nearly 20 years old. Those provisions rightly recognize that software programs are an intangible product that is susceptible to loss. Creating a backup copy right is a simple way to allow consumers to protect their investment.

If the government is serious about modernizing the Copyright Act, it could do worse than to start by modernizing the backup copy provision. In 1988, backing up digital data meant backing up software programs. Today, digital data includes CDs, DVDs, and video games. All of these products suffer from the same frailties as software programs, namely the ease with which hard drives become corrupted or CDs and DVDs scratched and non-functional. From a policy perspective, the issue is the same - ensuring that consumers have a simple way to protect their investment.

"Modernizing" copyright law should include bringing this provision into the 21st century by expanding the right to make a backup copy to all digital consumer products. As with the backing up software programs, TPMs quickly emerge as a concern since they can be used to block the ability to make such copies. Copyright law should be amended to permit consumers to make backup copies of their digital products, accompanied by a circumvention right to ensure that backup copying is not blocked by the combination of TPMs and anti-circumvention legislation.

Day 20: Public Domain (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1417/125/

Concerns about the impact of anti-circumvention legislation on public access and use of public domain materials is frequently addressed by arguing that the legislation only protects works that are subject to copyright. Since public domain materials fall outside that definition, works such as old public domain films that are enclosed with DRM could be lawfully circumvented. Those assurances notwithstanding, without the inclusion of a public domain circumvention right, circumventing DRM on works that combine public domain content with materials still subject to copyright could give rise to liability. In other words, pure public domain may be circumvented (provided you have the tools to circumvent), but once someone builds on a public domain work, they will benefit from the anti-circumvention provisions.

This is a particularly pronounced concern for historians, archivists, and film scholars since their ability to use public domain film or video may be limited by anti-circumvention legislation. For example, the distributor of a DRM'd DVD containing public domain films along with an additional commentary track would likely argue that there is sufficient originality such that the DVD is subject to copyright and that anti-circumvention provisions apply. While even supporters of the DMCA acknowledge that anti-circumvention legislation should not be used to privatize the public domain, they are loath to establish a full exception or circumvention right for public domain materials, arguing that all works contain some elements of the public domain and that a blanket exception could be used to cover virtually any circumvention.

A middle ground on this issue would include at least two provisions. First, a right to circumvent where the underlying work contains a substantial portion of public domain materials. The definition of "substantial" will obviously be crucial, but policy makers and legislative drafters must err on the side of ensuring that the public domain is not inappropriately enclosed. Second, given that anti-circumvention legislation encourages the use of DRM, the government should establish a policy that actively discourages its use on public domain materials. This could be achieved by blocking the right to use such technologies where non-DRM'd versions of the same works are not reasonably available to the general public.

On this issue, it is (again) worth recalling the words of Supreme Court of Canada, which emphasized the importance of the public domain in Theberge, stating that *"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."* Anti-circumvention legislation that does not adequately preserve access and use of the public domain fails to meet Justice Binnie's test and a circumvention right for works that contain a substantial portion of public domain materials is therefore essential.

Day 21: Print Disabilities (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1421/125/

DRM has the potential to impede access for all Canadians, however, one group may be particularly hard hit by widespread DRM use and anti-circumvention legislation. Those with print disabilities (called perceptual disabilities in the Copyright Act) rely on new voice technologies to gain access to works that they are physically unable to view. DRM can be used to limit or eliminate the use of technologies to read text aloud, thereby rendering it inaccessible for a segment of the population. Indeed, for those that think this is a mere fairy tale, one of the better known instances of "read aloud" restrictions involved the Adobe eReader, which restricted the reading aloud function for Alice in Wonderland (the same technology was later at the heart of the Dmitry Sklyarov case).

The Copyright Act contains a specific provision to address access for the print disabled. Section 32(1) provides that:

It is not an infringement of copyright for a person, at the request of a person with a perceptual disability, or for a non-profit organization acting for his or her benefit, to

> *(a) make a copy or sound recording of a literary, musical, artistic or dramatic work, other than a cinematographic work, in a format specially designed for persons with a perceptual disability;*
>
> *(b) translate, adapt or reproduce in sign language a literary or dramatic work, other than a cinematographic work, in a format specially designed for persons with a perceptual disability; or*
>
> *(c) perform in public a literary or dramatic work, other than a cinematographic work, in sign language, either live or in a format specially designed for persons with a perceptual disability.*

This provision is subject to two conditions: it does not authorize the making of large print books and does not apply "where the work or sound recording is commercially available in a format specially designed to meet the needs of [the perceptually disabled.]"

The government should do at least three things to address this issue. First, it should ensure that the Section 32(1) exception is not undermined by anti-circumvention legislation by providing a clear right of circumvention under the same conditions as currently found in the Act. Second, to the extent that the legislation addresses devices that can be used to circumvent (an issue that I will address before this series concludes), there should be an exception made for devices that can be used to give effect to this provision. Third, the government should take the opportunity to revisit Section 32(1) to determine whether it should be expanded. Reading the committee transcripts when this provision was debated is guaranteed to elicit genuine anger as the copyright lobby vehemently opposed any exceptions for the print disabled. Given the technological advances in the area, the time has come to correct that wrong by expanding the personal rights of access for the print disabled and ensuring that those rights are not diminished by anti-circumvention legislation.

Day 22: Libraries (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1422/125/

Early in the series, I discussed the need for DRM-free library deposits as part of the legislated library deposit program that seeks to preserve Canadian heritage. There are additional library issues, however, that merit discussion. Section 30.1 of the Copyright Act grants libraries (as well as archives and

museums) special rights to copy works in order to preserve or manage their collections. These are important rights and any anti-circumvention legislation must not be permitted to render them ineffective.

Section 30.1(1) provides that, under certain circumstances:

It is not an infringement of copyright for a library, archive or museum or a person acting under the authority of a library, archive or museum to make, for the maintenance or management of its permanent collection or the permanent collection of another library, archive or museum, a copy of a work or other subject-matter, whether published or unpublished, in its permanent collection

The circumstances that permit such copying include a copy that is:

> *(c) in an alternative format if the original is currently in an obsolete format or the technology required to use the original is unavailable;*
> *(d) for the purposes of internal record-keeping and cataloguing;*
> *(e) for insurance purposes or police investigations; or*
> *(f) if necessary for restoration.*

It is easy to see how each of these could apply in a DRM context, where the DRM becomes obsolete, the library needs to address the record-keeping or insurance purposes issue, or the physical version of the electronic copy becomes damaged and must be restored. In each of these instances, without a library right of circumvention that mirrors Section 30.1, anti-circumvention legislation could block the use of these provisions.

Moreover, Section 30.2 of the Copyright Act grants a further list of rights to libraries to facilitate research or private study on behalf of their patrons. This provision expressly excludes digital copies, however, a condition that makes little sense in the current environment and an issue that must surely be corrected as part of any "modernization" of the Copyright Act. Bill C-60 contained provisions that purported to allow for digital copies, yet they were so restrictive that they actually required libraries to employ digital rights management systems to limit the use of the digital copies. As I noted at the time, legislation that turns librarians into digital locksmiths is not a step in the right direction. Librarians should be able to stand in the shoes of their patrons unencumbered by the restrictive conditions contemplated in Bill C-60 and, consistent with the Supreme Court of Canada's CCH decision, any new copyright reform should grant broad rights in that regard.

Day 23: Education Institutions (Circumvention Rights)

http://www.michaelgeist.ca/content/view/1424/125/

Much like the Libraries, Archives, and Museums provisions discussed yesterday, Canadian educational institutions also benefit from some specific exceptions under the Copyright Act. These include:

- Section 29.4(1), which permits copying a work to project in a classroom for education or training purposes
- Section 29.4(2), which permits reproduction or telecommunications of works as required for examination purposes
- Section 29.6, which permits educational institutions and their educators to make a copy of a news program to be shown to a class, while 29.7 covers any other program communicated to the public by telecommunication for a class presentation. These provisions are subject to several requirements including royalty payments and stringent record keeping.

All of these provisions face the prospect of being curtailed by DRM as the technology can be used to limit basic copying, reproduction, and copying of television broadcasts. Once anti-circumvention legislation is added to the mix, merely attempting to exercise those rights could constitute an infringement. While many believe that these rights do not go far enough, they nevertheless should be preserved through an education institution circumvention right that match the statutory exceptions.

Ironically, the education community itself is effectively promoting the use of DRM as it pursues its ill-advised Internet exception. The exception would exclude works that are copy-protected, thereby encouraging the use of DRM for those that wish to avoid falling within the scope of the exception. Rather than pushing for this exception, the education community would do far better to promote limitations on the use of DRM within the education system and to ensure that existing education rights are not harmed by anti-circumvention legislation.

Day 24: Time Shifting (Circumvention Rights)

http://www.michaelgeist.ca/content/view/1427/125/

Given that my column today focuses on the WIPO Broadcast Treaty, the issue of time shifting and DRM comes to mind. The concept of time shifting arose from the U.S. Supreme Court decision involving the legality of the Sony Betamax machine. Arguments before the court focused on the fact that taping television programs simply enabled users to shift the time when they watch the taped program. More than 20 years later, the VCR (and increasingly DVRs and PVRs) are commonplace and consumers give little thought to the legal consequences of copying television programs.

While such activity is protected in the U.S., there is nothing in the Copyright Act in Canada that would expressly permit time shifting.

Canada is not alone in that regard - Australia faces the same issues and recently proposed an exception to allow individuals to make copies of television shows for viewing at a later time. The "modernization" of copyright in Canada should obviously address this issue as well, either by expanding the fair dealing user right such that home television taping would be permitted (as Telus recently advocated in a letter to Canadian Heritage Minister Bev Oda) or by establishing a specific user right to time shift.

With a new time shifting user right in hand, the government will also need to ensure that the right is not rendered irrelevant through anti-circumvention legislation. Indeed, the WIPO Broadcast Treaty envisions providing specific legal protection for the use of technological protection measures on broadcasts, creating the prospect that the ability to time shift will be blocked by broadcasters who can then use anti-circumvention legislation to prohibit attempts to circumvent broadcast controls. A quick look at Canadian discussion lists devoted to digital cable suggests that this is already happening, as many users note that restrictions on digitally taping programs seem to come and go. Time shifting is well accepted practice and Canadian law needs an explicit time shifting right accompanied by a parallel circumvention right that preserves the ability to time shift.

Day 25: Statutory Obligations (Circumvention Rights)

http://www.michaelgeist.ca/content/view/1429/125/

Section 32.1 of the Copyright Act features a list of several exceptions that ensure that the Copyright Act is compatible with other federal statutes that might require copying that would otherwise constitute infringement. While none of these exceptions are particularly crucial from a user perspective, the principle of consistently retaining the Act's prescribed exceptions is an important one. The statutory

obligation provisions include disclosures under the Access to Information Act, the Privacy Act, the Cultural Property Export and Import Act, and Broadcasting Act requirements. The Access to Information Act may be relevant here given that DRM's submissions to the government could fall within an ATIP request. Similarly, the Broadcasting Act provision could become relevant. To address the issue, a blanket circumvention right to meet statutory obligations is needed.

Day 26: Investigation of Concealed Code (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1430/125/

Consultations on anti-circumvention exceptions in the U.S. and Australia have raised at least two circumvention rights that involve the right to circumvent to access concealed information contained in software code. In the U.S., there is a specific exception for circumvention to access the list of websites contained on "block lists" maintained by filtering companies, sometimes referred to as "censorware." Blocked access to these lists has been viewed as a free speech concern.

In Australia, Linux Australia recently requested a right to circumvent to investigate suspected copyright infringement. The group noted that open source developers would be unable to investigate suspected cases involving violations of open source software licensing agreements (which require users to make modifications available to the public) if the software vendor used a DRM system that blocked access to the underlying code. Without a circumvention right, attempts to circumvent the DRM to access the underlying code would constitute an infringement.

The commonality in these two cases is that there may be a public interest in gaining access to code that is concealed by DRM. Bill C-60 would have addressed this concern by only making it an infringement to circumvent for the purposes of copyright infringement. If that approach is abandoned, a general right of circumvention to access concealed information where there is a broader public interest concern at stake is needed.

Day 28: Review of New Circumvention Rights (Circumvention Rights)
http://www.michaelgeist.ca/content/view/1437/125/

The U.S. DMCA experience leaves little doubt that the introduction of anti-circumvention legislation will create some unintended consequences. No matter how long the list of circumvention rights and other precautionary measures, it is impossible to identify all future concerns associated with anti-circumvention legislation. The U.S. DMCA addresses this by establishing a flawed tri-annual review process. The system has not worked well, creating a formidable barrier to new exceptions and long delays to address emerging concerns.

If Canada establishes anti-circumvention legislation, it must also establish an impartial process that will enable concerned parties to raise potential new circumvention rights without excessive delay. The process must be fast, cheap, and easily accessible to all Canadians. It will require clear criteria for the introduction of new circumvention rights along with an administrative structure to conduct the reviews.
The recent Australian review assessed each proposal on the basis of four criteria derived from the U.S. - Australia Free Trade Agreement:

- *The use of a work, performance, or phonogram must be non infringing;*
- *A work, performance, or phonogram that is used must be in a particular class of works, performances, or phonograms;*

- *An actual or likely adverse impact on the non-infringing use of a work, performance, or phonogram must be credibly demonstrated in a legislative review or proceeding; and*
- *The exception must not impair the adequacy of legal protection or the effectiveness of legal remedies against the circumvention of ETMs.*

While there may be some concern that the Australian criteria itself is overbroad, the committee was able to apply it to numerous cases where it found a likely adverse impact, a non-infringing use, and where it was not persuaded that an exception would impair the adequacy of the DRM protection.

The appropriate administrative structure is more difficult to identify. The Copyright Board of Canada is an obvious candidate, yet the lengthy hearing periods and the growing disenchantment with its processes suggest that it may not be the best choice. Given the marketplace concerns associated with TPMs, the Competition Bureau is another possibility, however, it also suffers from delays and insufficient administrative resources to address these issues. Perhaps the best approach would be the creation of a new collaborative body that brings together the expertise of the Copyright Board, Competition Bureau, Privacy Commissioner of Canada, as well as a handful of advisors from private sector groups with expertise in cultural matters, security, education, libraries, and consumer protection. This is not ideal, though neither is anti-circumvention legislation. Nevertheless, an on-demand review process for new circumvention rights is needed to counter the likely negative impacts that come with legal protection for DRM.

DRM POLICY

Day 27: Government Works (DRM Policy)
http://www.michaelgeist.ca/content/view/1434/125/

Government use of DRM represents a particularly difficult issue. Some argue that government should never use DRM systems (thereby eliminating the need for a circumvention right), maintaining that it runs counter other government priorities such as openness and accountability. Even governments themselves have acknowledged the problems associated with DRM. Last week, New Zealand issued guidelines on government use of DRM and trusted computing systems featuring a lengthy list of precautions and safeguards. They included requirements of minimal restrictions on content, assurances of future accessibility, full respect for privacy rights, retention of government control over a DRM-free version, and full access for all parties entitled to obtain the public information.

The Canadian government response to the DRM must address several issues. First, it must determine whether the use of DRM is ever appropriate. Particularly given the policy decision to encourage DRM use through the establishment of anti-circumvention legislation, a government rejection of DRM would represent an important balance to that policy.

Second, if the government identifies specific instances where DRM can be used, it must undertake a similar policy making exercise as the one just concluded in New Zealand to establish the necessary safety measures. The NZ policy document provides a useful starting point since it identifies a broad range of issues that must be addressed.

Third, the government should consider linking this issue with the ongoing debate over the future of crown copyright. As I have written in the past, the government should be moving toward the elimination of crown copyright by removing any restrictions or requirements for prior permission for the use of government or government funded work. Crown copyright represents an important and unnecessary restriction on the access and use of public information. Eliminating those restrictions while treading carefully with respect to government use of DRM would mark an crucial development in public accountability, transparency, and the "modernization" of copyright law.

FOUNDATIONAL ISSUES

Day 29: No Ban on Circumvention Devices (Foundational Issue)
http://www.michaelgeist.ca/content/view/1440/125/

Over the past 28 days, this series has addressed circumvention issues both big and small. I have saved the two most important issues for the end since I believe that without addressing these two issues, many of the other recommendations are rendered ineffective.

The first issue is that Canada must not establish a ban or prohibition on devices that can be used to circumvent DRM. Bill C-60 did not contain a provision prohibiting circumvention devices and that approach should be retained in any future legislation.

The DMCA features just such a ban. Section 1201(a)(2) provides that:

No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that -

> *(A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title;*
> *(B) has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to a work protected under this title; or*
> *(C) is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title.*

The DeCSS case demonstrated the breadth of this approach when merely linking to a devices (devices really refers to software that is able to crack a DRM system) was ruled sufficient to violate the statute.

The past 28 days have illustrated that there are numerous legitimate uses for all circumvention devices. The DMCA provisions seek to ban devices that are primarily designed to circumvent a TPM with only limited purposes other than circumvention. Yet this is precisely what is needed to allow security companies to do their work, for researchers to conduct their research, for individuals to protect their privacy, for the perceptually disabled to access content, for consumers to legitimately make backup copies, for libraries and the education community to take advantage of their exceptions, and for users to exercise their user rights. All of these activities - activities that are protected by law - depend on the ability to circumvent and therefore rely on the availability of tools that will allow for legitimate circumvention of DRM systems.

To create a basket of circumvention rights while simultaneously banning the availability of the tools necessary to circumvent is to neuter the right. There are no shortage of items that can be used for good or harmful purposes - drugs can save lives but result in an overdose or a hammer can be used to build a house but also be wielded as a weapon. There are both good and bad uses, yet we do not ban these items. We occasionaly regulate (either their distribution or the conduct associated with their use), but we do not ban. Canada similarly must not ban or prohibit circumvention devices that invariably serve numerous legitimate purposes.

Day 30: Prohibition on Contractual Circumvention of Rights (Foundational Issue)
http://www.michaelgeist.ca/content/view/1442/125/

Yesterday's post identified the availability of circumvention devices as a one foundational issue. The second foundational issue is protection against contracts that seek to trump the law by contracting out of the copyright balance or, in the event that anti-circumvention legislation is introduced, statutory circumvention rights. The use of contractual terms to effectively void privacy protection or basic user rights has become all too common with cases such as the Sony rootkit providing a classic example of how contractual terms that quash important legal rights are buried beneath the "I agree" button.

Governments are understandably loath to intervene in privately negotiated contracts. However, not every contract or contractual term is enforceable - there are certain terms (and certain contracts) which run counter to important public policy goals that will often be rendered unenforceable by a sympathetic court. On this particular issue, we should not wait for the courts to intervene. Rather, Canada should identify the core protections and policies that underlie the copyright balance and establish rules that prohibit attempts to "contract out" of such terms.

The copyright lobby will obviously object, arguing that this constitutes an inappropriate intervention into the market. Yet anti-circumvention legislation is also an intervention into the market. I remain steadfast against such legislation (even more so having completed 30 days of discussion), however, if anti-circumvention legislation is to become part of the Canadian legal landscape, then this tradeoff must be part of the bargain. If the copyright lobby wants its anti-circumvention rules, it must also accept statutory limits on the contractual terms associated with their use.