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Dear Scott Simms, member for Bonavista—Gander—Grand Falls—Windsor

I wrote you letters in the past, and I hope that we will soon have a chance to meet in person.

(Past letters from November and December 2004 published at:  
<http://www.digital-copyright.ca/node/view/582> )

As you are likely aware, the intent of Bill C-60 is to allow the recording industry and other similar lobby groups to more easily sue people such as your 10 (now 11?) year old son. This is the stated intent from the Heritage Minister and other members of the government that are promoting this bill, and this is the first level of what should concern you about Bill C-60.

The next level is to recognize that not only will this bill not achieve its claimed goal of reducing copyright infringements, but that there are very harmful unintended consequences.

There is considerable debate as to whether the current act is sufficient to provide these industries the tools to sue people. My analysis suggests that the current act is sufficient, but given the recording industry hasn't brought evidence to the courts yet that is sufficient to move forward with a case, we simply don't know for certain.

(My attempt to make sense out of the current law. I realize this is as "clear as mud", but that is the nature of copyright law analysis: <http://www.flora.ca/documents/p2p-legal-theories.html> )

This is part of the problem with this radical copyright revision: there is an assumption that everyone should obey this law, and there is moral outrage when people disobey it, but few -- including dedicated copyright lawyers -- can agree on what the current Copyright Act says. Bill C-60 is a 30 page bilingual modification of an approximately 80 page bilingual Act that not only does not simplify the situation, but where the **consequences and interpretation of the bill are far less understood than the current copyright act!**

While the entire bill is controversial, one of the most controversial is the addition of 34.02 which speaks of "circumvention" of so-called "technical measures" that claim to be used to protect copyright. The problem is that while technical measures can protect privacy and authenticity, it is not possible to use them directly to protect copyright. The indirect methods used have considerable harmful unintended consequences. I am including at the end of this letter an article I wrote titled "Legal protection for TPMs has no place in copyright law" which seeks to explain this issue.

To analyze the effects of anti-circumvention laws you need to break people into 3 groups: the technically sophisticated copyright infringer, the unsophisticated copyright infringer, and the non-infringer.

### **Technically sophisticated copyright infringer**

With the use of TPMs to protect copyright, often called "Digital Rights Management" or "Digital Restrictions Management" (DRM), the content is encoded in such a way that it can only be accessed

with authorized access tools. Thinking about the lock-and-key analogy, the content is in a locked box with the key being embedded within any authorized access tool. A technically sophisticated person would have no trouble extracting the key from the access tool and unlocking the content. At this point the content would be in a format the same as if DRM never existed.

This person can then make the DRM-free version of this file available to others. It is important to realize that at this stage they are already violating existing law, and the fact that they first unlocked the content first doesn't change much.

### **Technically unsophisticated copyright infringer**

All it takes is one person out of the almost 6.5 billion people worldwide to be technically sophisticated and unlock the file into a DRM-free file format, and the content is then available in a format that any infringer can access.

The most important thing to note is that for those who wish to infringe copyright, the existence of DRM has little to no effect on them. All the existing methods to illegally share this content still exist, and the past existence of DRM doesn't change this.

### **The non-infringer (law abiding citizens, your constituents!)**

Someone who is not going to infringe copyright is also going to obey the limits imposed by DRM. This means that if they wish to enjoy content encoded in Microsoft, Apple, Sony or other DRM file format, they will purchase access tools with the right keys from Microsoft, Apple, Sony or whatever other companies tools they need to buy to access their purchased content.

The act of tying the purchase of one product to the purchase of another is well known in competition policy circles, and is the core of section 77 of the Canadian competition act. It is recognized that it is harmful to have the enjoyment of one product tied to the purchase of another, as this massively reduces consumer choice and harms innovation that would otherwise be sparked by competition.

We know from Beta-vs-VHS that consumers are not willing to "own" multiple access devices for the same type of media. This suggests that for each type of media there will eventually be a "winning" DRM vendor controlling the keys. This company will be in a position to be able to dictate terms to the creators who's content they will be encoding, and audiences whose access tools they will have control over.

The most well known example of what happens when a technology company attempts to control creativity was back in 1909 when what is now "Hollywood" was born out of a group of "pirates" trying to escape from the type of technology control we are now enacting in C-60.

Creators and directors migrated from the East Coast to California in the early twentieth century in part to escape controls that patents granted the inventor of filmmaking, Thomas Edison. These controls were exercised through a monopoly "trust," the Motion Pictures Patents Company, and were based on Thomas Edison's creative property—patents. Edison formed the MPPC to exercise the rights this creative property gave him, and the MPPC was serious about the control it demanded. (Lawrence Lessig, "Free Culture", P66)

(Note: I can purchase and drop off at your parliamentary office a copy of the book "Free Culture" if you are willing to accept it. I have been handing out copies of this insightful book to other members of parliament. A list of MPs who have accepted copies of the book is at:  
<http://www.digital-copyright.ca/taxonomy/page/or/364> )

While this is a simplified version of the argument, the important thing to realize is that the legalization of the tied selling of DRM through anti-circumvention laws will have the effect of greatly reducing consumer choice for law abiding citizens. It will also have a devastating effect on creative communities which will now have a powerful government protected intermediary who they must negotiate with in order to distribute their digital content to audiences. The DRM companies will be afforded a level of control through technology that Edison could not ever have achieved, given software allows for more fine tuning of control than patent monopolies can.

Much of the bill comes from a desire to ratify the 1996 WIPO treaties. These treaties do not represent an "international consensus", but are a recent example of what is called "policy laundering".

In 1995 the United States Patent and Trademark Office articulated a very different vision of the Internet. Up to that point the analogy was of an "information superhighway" that would be the infrastructure on which a knowledge economy could be built, much like how the existing highways were the infrastructure for the Industrial economy.

In his submission to the National Information Infrastructure, Bruce A. Lehman, then Assistant Secretary and Commissioner of Patents and Trademarks, articulated a very different vision. His vision would be of this digital network being a centrally controlled delivery mechanism for the incumbent telecommunications, broadcasting and "software manufacturing" industry associations.

<http://www.uspto.gov/web/offices/com/doc/ipnii/>

When this harmful policy did not get passed at home he took it to WIPO where in 1996 two treaties were signed articulating the same vision. He took this "laundered" policy back to the United States and in 1998 the highly controversial Digital Millennium Copyright Act was passed. Now in 2005/2006 we are debating Bill C-60 in Canada which is based on the same laundered policy, and we are observing the same lack of adequate debate and review that was seen in other countries having this bad policy rammed through their governments.

If Canada feels an obligation toward WIPO it should not be to ratify the 1996 WIPO treaties, but to work with the international community that is trying to reform WIPO to fulfill its mandate within the United Nations. The most visible group is the "friends of development" who are working towards a "Development Agenda" that counters the extremely harmful policy directions articulated in the 1996 treaties. It is likely that over time the 1996 treaties will be abrogated entirely.

While I could go into more details in the bill and its international policy context, I would like to end with a quick thought from the summary of my participation in OpenCity 2005 in Winnipeg. <http://www.flora.ca/oc2005/> It was in the context of conversations between creators like myself and some of the people from traditional creator communities that didn't understand our views.

Question: Don't you believe that creators should be able to get paid for their work?

Free/libre Culture Answer: Yes, and that is precisely why we strongly oppose Bill C-60 and the overall public policy direction it represents.

Sincerely,  
Russell McOrmond

P.S. While this may seem long, there is so much more that could be said. Let me know if this peaked your interest and if you are willing to sit down and discuss this and related issues. I agree with the overall goals that Heritage has for protecting Canadian Culture, but strongly disagree with the methods chosen which I see as opposing those goals.

# Legal protection for TPMs has no place in copyright law

Submitted by [Russell McOrmond](#) on Wed, 2005/06/15 - 20:06.

Online at: <http://www.digital-copyright.ca/node/view/930> (Includes many links)

[p2pnet.net News View](#): - Canada's legislators are being bombarded by lobbying from legacy content industries to enact laws that give legal protection to technological protection measures they claim can safeguard copyright.

The problem with these policy proposals is: while technological protection measures can be extremely valuable, they can't accomplish the goals of those who want to use them as a form of copy protection.

Technological Protection Measures (TPM) protect privacy and authenticity, and can be used to make sure only authorized persons gain access to content, whereas copyright is legislation that specifies the legal limits of what a person who already has access to the content can do with it.

Since TPMs and copyright accomplish quite different goals, it should be obvious that one can't be used as a substitute for the other and legal protection for TPMs has no place in copyright law.

I'm strongly opposed to legal protection for TPM being added to copyright but I do, however, support legal protection for TPMs when used for purposes TPMs can legitimately and directly accomplish such as identity and privacy protection. It turns out that if appropriate legislation is passed to protect TPMs used to protect identity and privacy, positive uses of TPMs for copyright holders can be protected, at the same time avoiding the harmful unintended consequences.

## What TPMs do

Cryptography is the most commonly used form of TPM. There are two broad categories relating to the type of keys used: symmetric key and asymmetric key cryptography.

Think of cryptography as math that allows you to encode information using a digital key that requires "the right key" to unlock it.

With symmetric key cryptography, the key that locks the information is the same as the one that unlocks it, and the information can be seen and exchanged only by people with that key.

With asymmetric key cryptography, you have one key that locks and a matching but different key that unlocks. This is often called public key cryptography because you can publish one of the keys and keep the other private. If someone encrypts information in the public key, it's then private to the person with the private key and only they can unlock it. If someone encrypts information in their private key, anyone can decrypt it with the public key and discover the identity of the person who encrypted it.

Watermarks are another form of TPM which can be used to indicate the identity of the rightsholder.

## What TPMs don't do

There are many technical explanations about why TPMs can't stop people from making unauthorized copies of works under copyright.

Non-technical people should recognize intuitively that TPMs can't protect copyright. They're often told TPMs are like a lock.

Locks prevent people without the key from gaining access through a locked door, but they can't protect you against people who have a key. With digital content, the copyright holder wants to give authorized people access to content and will therefore give audiences a key either directly or indirectly, for instance within a device such as a DVD player. They don't want to restrict your access to what's behind the locked door. But they do want to somehow restrict what you do once you're inside. Locked doors obviously won't allow this and any attempt to use locks to accomplish this goal is fundamentally flawed.

Given that TPMs can't directly accomplish copy protection, indirect techniques used to try to "fit the round peg in the square hole" can have harmful and unintended consequences which offends the technical community as it strives to innovate and provide better interoperable communications tools, including better TPMs. The unintended consequences of legislation protecting misuse of TPMs cause considerable harm to innovation, competition, and compatibility in the marketplace.

**flora.ca:** [Why creators should oppose DRM](#)

**p2pnet:** [Control through DRM](#)

**Cory Doctorow's** [Microsoft Research DRM talk](#)

What would legal protection for TPM legislation look like?

To avoid the unintended consequences of the proposed "copyright-related" TPM laws, a few key features are needed.

Most important, legislation must clearly allow circumvention for research and learning purposes. TPMs are advanced by people trying to break them, finding flaws, and improving on the TPMs. This isn't research that can be left vendors who have a vested interest to keep flaws secret (meaning only the "bad guys" know how to break them). It must, rather, be research anyone can take part in and whose results are made public.

The legislation should only protect the intended purposes of a TPMs such as privacy and authenticity, and not indirect uses such as copy protection; and, it should be consistent with competition policy, and include provisions to ensure that TPMs are not being used to impose specific TPM vendors onto the marketplace, or allow a tie between a consumers choice of content and technology used to access that content.

Vendor-neutral aspects of a TPM such a key should be protected, but algorithms (software processes) or other attempts to promote single vendors shouldn't be offered protection. Protection should also not be offered to techniques used to harm competition in other ways, such as the regional coding of DVDs which are better understood as a barrier to trade and not a legitimate use of TPMs.

The legislation should be as technologically neutral as possible so that it would cover new techniques that are not yet in use today.

What can legal protection for TPMs used to protect private and identity offer copyright holders?

Many legitimate goals of copyright holders can be achieved by the proper use of TPMs without harmful or unintended consequences. It's also true that users of TPMs such as e-Commerce and others will receive considerable benefit from digital privacy and identity protection.

**Satellite/Cable/over-air broadcast undertakings**

The primary use of TPMs by this sector is to ensure that people who aren't customers are not able to access the signal. One obvious use of TPMs is to provide each customer with a unique digital key, preferably stored on something like a standard USB key device so the content access key is independent of the vendor of the receiver. Individual channels can be encoded such that they can be received only by people with keys that are authorized to receive that specific channel.

With legal protection for TPMs used for privacy/authenticity, it could be a crime to give out copies of these keys to others. If I buy a key from a cable company and I knowingly give a copy to a friend, I'd be committing an offense. If I copied someone else's key without their permission, I would be guilty of "identity theft".

There's no technological reason I can think of why satellite, cable, or digital over-air broadcasters can't take this approach. But they seem to prefer being technologically lazy and instead of having hardware vendor neutral standards and per-customer keys, they want to gain control over consumer electronics with schemes such as copy protection and the extremely controversial "broadcast flag".

These schemes aren't legitimate uses of TPMs and in fact, broadcast flag doesn't involve a TPM at all. They're no more than attempts to have the government grant one specific sector (legacy broadcasters) control over innovation in other sectors (ICT, consumer electronics, etc). This is a policy that should not only be rejected, but competition and anti-trust agencies should be modernized to ensure these types of cross-sector control are adequately investigated and prosecuted.

### **Subscriber or other membership-required services**

There are a wide variety of services to which only subscribers should have access, such as online newspapers or forums.

Just as with broadcasters, the proper use of the technology is to sell or otherwise offer encryption keys to subscribers, with service configured so those without the proper encryption keys can't access to it.

### **Moral rights protected by watermarks**

Existing Canadian law includes moral rights which protect the right to be associated with a work. If watermarks are adequately recognized in law as a form of identification, the removal of watermarks would be a violation of moral rights.

### **Remuneration systems protected by watermarks/DRE**

Digital Rights Encoding (DRE) includes a variety of techniques where copyright and license information can be embedded within content. Creative Commons uses metadata formats which are being extended to indicate many different types of licenses, with this metadata being used in search engines to allow people to search for content that are licensed in specific ways.

Watermarks can also be used to indicate authorship information for file formats that may not have adequate metadata capabilities.

One of the problems with moving to a flat-fee system such as the EFF's (Electronic Frontier Foundation) Voluntary Collective Licensing of Music File Sharing plan is trying to determine how to fairly distribute the resulting fees to copyright holders.

While it should be obvious that record sales and radio air-play won't provide relevant data for music file-sharing because the markets are very different, this is currently what the Canadian Private Copying Collective uses for their levy.

A better option would be to automatically sample and check the watermarks and/or metadata to determine what files are being shared, offering a far more accurate indication of popularity than legacy measurements.

These examples demonstrate that there are legitimate uses of TPMs which are appropriate for governments to provide legal protection, but also that copyright is not one of those legitimate uses. Parliament must not enact harmful legislation that seeks to protect uses of TPMs that will fail, with legislation possibly tabled later this week being such an example of bad legislation.

If you're Canadian, write to your member of parliament, and otherwise get involved in the opposition to this legislation.

**Russell McOrmond - [\*p2pnet contributing editor\*](#)**

# **All the contents of this package can be freely/legally copied and shared with others!**

## **Included in this envelope:**

- A letter to the MP.
- A copy of an article titled "Legal protection for TPMs has no place in copyright law"
- 5 CDs
  - TheOpenCD.org  
This is a CD of Free/Libe and Open Source Software (FLOSS -- <http://flora.ca/floss> ) for Microsoft Windows computers. I hand these out as an alternative to business cards for many people. This is the sector I work in, offering FLOSS to customers which sometimes involves updating the software.
  - The Intel (so-called "PC" computers) and PowerPC (Macintosh, etc) versions of Ubuntu, which is a Linux distribution. It includes a "live CD" which you can boot from and sample the FLOSS software without installing anything on your hard disk
  - The Share Sampler volume two from Fading Ways Records (Headquartered in Toronto). This music is licensed under a Creative Commons license which pre-authorizes peer-to-peer (offline or online) sharing of the music. The inside jacket explains their motivations well, and their sales and concert attendance has increased dramatically since they started to use these new licenses.

The musicians with Fading Ways are also involved with:

Canada Music Commons: <http://www.canadamusiccommons.net/>

Musical Artists Global Independence Collaborative:  
<http://www.canadamusiccommons.net/magic.html>

- Open City (2005) is another music CD with music that is pre-authorized to be legal to share. The evening events for OpenCity 2005 included a spoken word evening and two evenings of local bands, some of which contributed to this CD.

It is important to remember that for many independent musicians that authorizing this sharing is seen as the best and cheapest form of advertising for their music. While the monopolists in the recording industry association may not like competition as they control 95% of the sales with far less than 5% of the musicians signed to them, the vast majority of musicians benefit from it.

There is a growing number of Canadian musicians who recognize that CRIA, primarily controlled by EU and US major labels, is a far greater threat to their ability to make a living with their music than "copyright infringement".