



Why legal protection for technological measures is so controversial

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- Self-employed consultant since 1995
- Canada-DMCA-Opponents started in summer 2001
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- Policy coordinator for CLUE: Canada's Association for Open Source

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What is Copyright

- Series of activities which, if done with respect to a copyrighted work, needs permission from copyright holder.
 - Exceptions:
 - some activities which would otherwise be covered are considered "fair dealings"
 - Some activities are under a compulsory license where permission is not required, only a government set royalty payment
- Other activities unregulated by Copyright

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Standard Disclaimers

- IANAL (I Am Not A Lawyer)
- TINLA (This Is Not Legal Advise)
- While my passion is law and public policy, my formal background is in technology
- If I use acronyms which aren't clear, please interrupt and force me to clarify

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Activities which need permission

- Section 3 for most works
 - produce or reproduce, perform in public, publish, including translations, convert dramatic work to novel, convert novel to dramatic work, make sound recording, cinematographic work, communicate to public by telecommunications, publicly exhibit artistic work, rent computer programs or musical works
 - authorize such acts
- Section 27 for secondary liability
 - Sell/rent, trade, etc – "known or should have known" was infringing

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Summary

- What is copyright?
- What do the 1996 WIPO treaties ask us to do?
- What does Bill C-32 say?
- Understanding "technological measures"
- What is the core problem? Is this a copyright issue?
- Discussion

See also: <http://BillC32.ca/faq>

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Activities which need permission

- Section 15 for performers performances
 - Not fixed: to communicate, perform, fix
 - Fixed: reproduce
 - Section 26 deals with WTO country performers
- Section 18 for sound recording makers
 - Publish, reproduce, rent
- Section 21 for broadcasters
 - Fix, reproduce fixation, retransmission, publicly perform w/entrance fee

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Activities that only need payment (compulsory license)

- Section 19 (performers and sound recording makers)
 - "paid equitable remuneration for its performance in public or its communication to the public by telecommunication, except for any retransmission"
- Section 81 (authors, performers, makers)
 - "receive remuneration from manufacturers and importers of blank audio recording media in respect of the reproduction for private use"

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What does C-32 say about TPMs

- "technological protection measure" means any effective technology, device or component that, in the ordinary course of its operation,
 - (a) controls access to a work, to a performer's performance fixed in a sound recording or to a sound recording and whose use is authorized by the copyright owner; or
 - (b) restricts the doing — with respect to a work, to a performer's performance fixed in a sound recording or to a sound recording — of any act referred to in section 3, 15 or 18 and any act for which remuneration is payable under section 19.

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Why are we talking about technical measures and copyright?

- 1994/1995 US National Information Infrastructure, Working Group on Intellectual Property Rights
- NII Copyright Protection Act of 1995
- 1996 WIPO treaties: WIPO Copyright Treaty (WCT), WIPO Performances and Phonograms Treaty (WPPT)
- 1998 USA DMCA
- Canada: 2005 C-60 (WIPO), 2008 C-61 + 2010 C-32 (WIPO+DMCA)

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Where did "access" come from?

- USA DMCA : § 1201. Circumvention of copyright protection systems
 - (a) Violations Regarding Circumvention of Technological Measures. — (1)(A) No person shall circumvent a technological measure that effectively controls access to a work protected under this title.
- USA proposed "access controls" in 1996 at WIPO, but other countries rejected the idea.
- Concept of access always left to other laws: If you jump a gate and watch a movie without paying, you are not accused of copyright infringement, but trespass.

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What do the 1996 WIPO treaties say about TPMs?

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

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Understanding "technological measures"

There are 4 things in my hand: tool for understanding technical measures
All 4 have owners, all 4 can have "technical measures" applied to them



- 1) Medium: CD's, DVD's, sometimes nothing (downloads)
- 2) Content: music, movies, text, software, ...
- 3) Hardware: CD/DVD players, TV, phones, computers, cameras, ...
- 4) Software

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Medium/Content

- Content is passive, and can not make decisions on its own
- Content can be manipulated in various ways to accomplish various goals
- Cryptography: convert ordinary content (plaintext) to gibberish (cyphertext). Used for confidentiality, integrity, authentication, signatures
- Watermarking: embed information in other data. May be visible/invisible, used to identify data, confidential message
- At the other end of a "download" is a (hopefully) secured computer/network



Suggested reading / discussion

- Petition for Users Rights <http://digital-copyright.ca/petition/>
- Petition to protect Information Technology property rights <http://digital-copyright.ca/petition/ict/>
- Bill C-32 information <http://BillC32.ca>
- Bill C-32 FAQ <http://BillC32.ca/faq>
- Code: and other laws of cyberspace, by Lawrence Lessig
- The Wealth of Networks, by Yochai Benkler
- The Innovator's Dilemma, by Clayton M. Christensen
- Moral Panics and the Copyright Wars, by William Patry
- The Tyranny of Rights, by Brewster Kneen

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Hardware/Software



- Hardware simply follows instructions in the form of software, and is where any "decisions" or other activity happens. Who chooses software controls hardware!
- Computer security is all about ensuring that only authorized software runs, or that only authorized persons are able to run software
- Authentication: Something you have (ID card, key), something you know (password), something you are (biometrics)
- Data stored within hardware (disk drives, flash memory) can be secured as with any other content

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What is the core problem?

- Technology can be used to deny access from someone who is unauthorized
- Copyright regulates activities which presume someone already has access.
- Copyright never concerned itself with concept of access, which was left to other laws
- Is technology useful for stopping an authorized person from doing things which Copyright regulates?
- Should we radically change "Copyright" to address this problem, or is this a non-Copyright issue?
 - Hint: contracts, e-commerce
 - Rules in DRM/TPMs – contractual conditions for permission?

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