

**TECHNOLOGICAL PROTECTION MEASURES –
THE “TRIPLE LOCK”**

What is a technological protection measure (TPM)?

A technological protection measure (TPM) is a means of controlling access to and use of digital content by technological means i.e. through hardware or software or a combination of both. A common use of TPMs is to prevent or restrict copying. A TPM can manifest itself in many ways e.g. a DVD player that won't play a DVD bought in another part of the world because of region coding, the inability to transfer legally purchased music to a third party MP3 device. Digital Rights Management (DRM) is often used interchangeably with TPMs, although there may be some differences in definitions. To its detractors, DRM is known as “Digital Restrictions Management”ⁱ.

Librarians and other users began to take notice when TPMs acquired their own special legal protection in the 1996 WIPO Copyright Treaty (WCT). This means that there is an international treaty provision making it illegal to circumvent or break a TPM “used by authors in connection with the exercise of their rights”ⁱⁱ. Anti-circumvention provisions are being implemented into the national laws of countries that have signed the WCT. Amongst the first to do so was the US in its 1998 Digital Millennium Copyright Act (DMCA), followed by the 2001 European copyright Directiveⁱⁱⁱ. Both implementations are generally regarded as strict interpretations of the WCT provisions. Circumvention is illegal, regardless of the purpose. In the US, circumventors are subject to civil and criminal penalties.

This means that right holders have been given a new tool with which to enforce their copyrights. Using technology, they can set the rules by which content is accessed and used, effectively bypassing copyright law and any provisions that may exist for the benefit of users e.g. exceptions and limitations. Together with the prevailing use of licences to govern access to digital content, and the propensity of licences to override copyright law, rights holders find themselves in a very powerful position in the digital world, placing users in a “triple lock”. (See also *The Relationship between Copyright and Contract Law: Electronic Resources and Library Consortia*).

There is widespread concern amongst consumer advocates that while TPMs/DRMs are poor at preventing commercial copying, they are good at restricting consumer use, including normal expected uses such as format and time shifting. Consumer choice may be split into different pricing models for restricted functionality versus a wider choice. TPMs block assistive technologies used by people with disabilities. Lack of interoperability e.g. locking consumers into one platform, can lead to anti-competitive behaviour, price discrimination and market segmentation.

Concerns about privacy and security were realised in the now infamous “Sony rootkit” story which broke in November 2005^{iv}. Sony BMG Music Entertainment distributed a copy-protection scheme with music CDs that secretly installed a rootkit (commonly used by malware) on their customers’ computers. The software tool was run without the knowledge or consent of the computer owner and it created a major security flaw in the computer’s operating system leaving it vulnerable to computer viruses. So great was the outcry, that Sony was forced to remove copy-protected CDs from shops in the run-up to the lucrative Christmas season. Not before an estimated half a million networks worldwide were infected, however, followed by a rash of class-action lawsuits in the US. For people with fast broadband internet access and the ability to download fixes easily to their computer, perhaps this was a major inconvenience. For a primary school in a developing country with no internet access, who is liable for the costs of fixing their broken computer in such situations?

Practice

Legislators are aware that such powerful provisions may need to be checked in some way.

The US Register of Copyrights has the authority to make rules in response to proposals by affected parties. In the most recent ruling in December 2006, persons who engage in non-infringing uses of copyrighted works in six classes of works will not be subject to the statutory prohibition during the next three years. These include audio-visual works in a third-level educational library or media studies department and, to enable the Internet Archive to legally preserve software and video games, computer programs and video games on obsolete formats^v.

The European legislator takes a different approach. The copyright Directive says that Member States must intervene to enable beneficiaries to avail of certain exceptions for TPM-protected content (e.g. the library exception^{vi}) and has discretion to intervene for others (e.g. reproduction for private use^{vii}). However, these safeguards do not apply to works subject to "click-wrap" contracts, effectively leaving the user at the mercy of the rights holder with regards to circumvention for online content. Otherwise, the Directive encourages right holders and users to reach voluntary agreements, a piecemeal solution that naturally favours the stronger party.

The US-based digital civil rights organisation, Electronic Frontier Foundation, documents how the anti-circumvention provisions of the DMCA have been used to stifle a wide array of legitimate activities, rather than to stop copyright infringements. It illustrates how they are being invoked against consumers, scientists, and legitimate competitors, rather than pirates^{viii}.

Policy issues for libraries

The success of the Information Society depends on digital content being accessible. The legal protection given to TPMs/DRMs creates a conflict with copyright exceptions. At a hearing of the UK All Parliamentary Internet Group in 2006, the British Library warned that TPMs might "fundamentally threaten the longstanding and accepted concepts of fair dealing and library privilege and undermine, or even prevent, legitimate public good access"^{ix}.

Libraries have a number of concerns.

- Libraries must not be prevented from availing of their lawful rights under national copyright law. TPMs cannot distinguish between legitimate and infringing uses. The same copy-control mechanism which prevents a person from making infringing copies of a copyright work, may also prevent a student or a visually impaired person from making legitimate copies under fair use/fair dealing or a legal copyright exception.
- Long-term preservation and archiving, essential to preserving cultural identities and maintaining diversity of peoples, languages and cultures, must not be jeopardised by TPMs/DRMs. The average life of a DRM is said to be between three and five years. Obsolescent DRMs will distort the public record of the future, unless the library has a circumvention right.
- The public domain must be protected. DRMs do not cease to exist upon expiry of the copyright term, so content will remain locked away even when no rights subsist, thereby shrinking the public domain.

Libraries are strong opponents of anti-circumvention provisions that enable rights owners to override exceptions and limitations in copyright law. Libraries must be allowed to circumvent

a TPM/DRM to make a non-infringing use of a work.

Library position statements

American Library Association, Libraries and Copyright in the Digital Age
<http://www.ala.org/ala/washoff/WOissues/copyrightb/copyright.htm#LnC>

eIFL/IFLA Joint Statement WIPO SCCR/14, Draft Basic Proposal for the WIPO Treaty on the Protection of Broadcast Organizations, May 2006
http://www.eifl.net/services/ipdocs/sccr_14_written.pdf

IFLA Committee On Copyright And Other Legal Matters (CLM)
Limitations And Exceptions...In The Digital Environment: An International Library Perspective
<http://www.ifla.org/III/clm/p1/ilp.htm>

References

Digital Restrictions Management <http://www.drm.info/>

Digital Rights Management: A failure in the developed world, a danger to the developing world, Cory Doctorow http://www.eff.org/IP/DRM/drm_paper.php

Electronic Frontier Foundation, Unintended Consequences: Seven Years under the DMCA April 2006 http://www.eff.org/IP/DMCA/unintended_consequences.php

EeIFL.net), WIPO International Seminar on Intellectual Property and Development, 2005
http://www.eifl.net/services/ipdocs/isipd_eifl.pdf

European Commission, Directive 2001/29/EC (copyright Directive)
http://ec.europa.eu/internal_market/copyright/copyright-info/copyright-info_en.htm

US, Digital Millennium Copyright Act (1998)
<http://thomas.loc.gov/cgi-bin/query/z?c105:H.R.2281:>

World Intellectual Property Organization Copyright Treaty (WCT) (1996)
<http://www.wipo.int/treaties/en/ip/wct/>

ⁱ<http://www.drm.info/>

ⁱⁱWCT Arts 11 & 12, WPPT Arts 18 & 19

ⁱⁱⁱEU copyright Directive Arts 6 and 7

^{iv}<http://www.wired.com/news/privacy/0,1848,69601,00.html>

^v<http://geemodo.blogspot.com/2006/11/internet-archive-secures-exemption-to.html>

^{vi}Article 5.2(c)

^{vii}Article 5.2(b)

^{viii}http://www.eff.org/IP/DMCA/unintended_consequences.php

^{ix}<http://www.apig.org.uk/current-activities/apig-inquiry-into-digital-rights-management.html>