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James H. Billington The Librarian of Congress

Dear Mr. Billington,

With regards to your request for comments on the classes of works to be exempted from the DMCA's anti-circumvention provisions, I would like to submit the following:

A. Technological Measures

2. Do different technological measures have different effects on the ability of users to make noninfringing uses? Can and should the Librarian take account of those different effects in determining whether to exempt any classes of works from the anticircumvention provisions of section 1201? If so, how? In determining what constitutes a class of works?

Yes, technological measures that seek to deny end users the ability to copy or to play back a work cause considerably more of an impact on consumers' fair use rights - and on the ability of the general public to freely use the work once copyrights expire - than measures designed solely to let consumers determine if they have an "original" copy of a work, or a commercially-pirated counterfeit.

Examples of the former type of technological measures include all of the technological protection measures that the large movie and music companies are using or planning to use: MacroVision, CSS, a reported plan to make sure that consumer DVD recorders/blanks won't let you record the whole disc, SDMI, non-standard CDs intended to prevent a user from performing digital audio extraction, and copy (or playback) protection for DVD-Audio and Super Audio CD.

Examples of the latter type of measure include the hologram stickers that you find on Microsoft products.

B. Availability of Works

3. How has the use of technological measures that effectively control access to copyrighted works affected the availability of such works to persons who are or desire to be lawful users of such works?

(a) Current state of affairs

<u>Macrovision</u>. Given the availability of boxes that remove it, and of dual-well VCRs designed to ignore it, one could question whether Macrovision "effectively" controls access to copyrighted works. However, for people without such equipment, Macrovision can interfere with these types of legitimate activities:

- Format- and location-shifting, where no distribution of copies is taking place.
 - Macrovision prevents parents from making tapes of DVD-Video titles so that the kids can watch shows on a VCR when the parents are using the DVD player.
 - Macrovision prevents people from watching a DVD movie at a friend's or relative's house if the friend or relative does not have a DVD player.
 - Macrovision may even prevent location-shifting when using an uncrippled 8mm camcorder. This is because Macrovision pollution is carried on the 8mm tape (even if the camcorder itself is immune). Hooking the camcorder into the VCR for playback only may cause the VCR's Macrovision to kick in.
- Watching a DVD on a TV set. Macrovision on VCRs often "kicks in" even if the VCR is not recording. If you connect a DVD player to a TV set through a VCR, because the TV doesn't provide a sufficient number of RCA/S-Video jacks, DVD playback may not work. (This must be a common complaint because my DVD player came with a warning against connecting through a VCR.)
- Watching an original VHS tape on a TV set. Some TV sets may be sensitive to Macrovision. On my own set, I have seen brightness leaking over at the top of "black" screens that could well be Macrovision noise, although fortunately it's not bad enough to keep me from watching my VHS tapes and DVDs.
- Using "line doublers". I don't own esoteric high-end video gear, but I've seen complaints posted on the Internet from those who do, about how Macrovision can interfere with such equipment

<u>CSS</u>. The CSS system on DVD-Video discs has affected the availability of DVD movies to users of the Linux operating system.

<u>CGMS</u>. The copy flags on DVD-Videos may be set to "DO NOT COPY". People who have tried to digitally record from DVD to MiniDisc have reported (www.minidiscussion.com) that this was blocked, although the intention of SCMS is to permit one generation of digital copying. Note that a simple workaround is to do analog recording.

(b) October 28, 2000 to October 28, 2003

During - or perhaps slightly before - this time period, I expect that the music industry will implement a lot of technological measures. The ultimate result if these measures succeed is already clear: they will effectively prevent people from exercising many of their Fair Use rights, or severely limit people's ability to exercise their rights.

For example, DVD-Audio is designed to prevent the user from doing digital audio extraction on a computer. This is a use which the RIAA sought to have declared illegal (in the Diamond Rio trial), and which the court refused to declare illegal. The court ruled that just because the AHRA provided immunity against lawsuit for one type of devices, that did not negate Fair Use with regards to others.

Another reported aspect of DVD-Audio is that it will only be possible to record a work one time per (crippled new) recorder, if at all. This restriction goes way beyond the Serial Copying Management System (SCMS) mandated by the AHRA, which allowed for one generation of copying, but did not try to prevent you from copying the same song to both an album tape and a mix (compilation) tape.

There's a technological measure called SDMI that bears watching, not only for its effects on consumers, but because of its possible use as a means of locking out unsigned artists who depend upon the Internet and non-copy-protected MP3 files as a means of promoting their own work. The record industry is pushing hard to get SDMI portables in place of non-copy-protected MP3 ones. One of the "features" of SDMI is that there's a "Phase 2" trigger to prompt users to "upgrade" to the firmware that implements Phase 2 restrictions when a unit hears an appropriate signature in a new song. The user then has to "upgrade" or lose the ability to play new music.

Although supposedly SDMI Phase 2 portables will play MP3 files, as long as there are no traces of SDMI watermarks in them, I would not assume this was set in concrete. Reportedly the record labels wanted Phase 2 portables to refuse to play any MP3 files. Now, suppose that they got this (either in Phase 2 or a hypothetical Phase 3), and MP3 portables were rare, and SDMI portables were everywhere.

In this situation, the companies that controlled access to SDMI encoders (and/or had lots of money to buy access to them) would have a huge advantage over independent artists when it came to the market for downloadable music. The recording industry could then, essentially, tell each unsigned artist to fork over \$10,000 for access to SDMI encoding, or

to sign a traditional record contract and forfeit their own copyrights, as a precondition for distribution. Either way, the unsigned artist would be at the industry's mercy.

If this scenario came to pass, it would affect the viability of unsigned artists, and thus the availability of their works to people who wished to be law-abiding users of those works.

4. Are there specific works or classes of works that, because of the implementation of such technological measures, have become unavailable to persons who desire to be lawful users of such works? If so, identify those works or classes of works and explain how they have become unavailable.

(a) Current state of affairs

DVD-Videos are unavailable to Linux users (and other alternative OS users) who wish to lawfully view them on their computers.

I'd imagine that Macrovision and CSS don't distinguish between some thief who wants to post a movie to the Net, and somebody who wants to copy a few stills or a small clip to use in context of a Siskel & Ebert style movie review.

(b) October 28, 2000 to October 28, 2003

Linux users are going to have the same problem with DVD-Audio as they did with DVD-Video. CSS2 will prevent anyone from writing an Open Source player for it, at first.