## Comments on DMCA Exceptions to Prohibition on Circumvention of Copyright Protection Systems

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Currently one of the most controversial technological measures for protection of copyrighted works is the weak (40-bit) encryption used for DVDs, called CSS, or code scrambling system. This system aims to protect DVDs from being converted into other digital formats, but does not protect the DVD from being directly copied. Only authorized manufacturers of DVD players can access the system, and only after licensing the keys from the Motion Picture Association of America, which means that currently, if one wants to view DVDs on their computer, they must use either Microsoft Windows or Apple Mac operating systems. This effectively prohibits the lawful viewing of DVDs on systems such as Linux, FreeBSD, BeOS, and many others.

CSS was recently "broken" by a group of European programmers who hoped to provide a player for Linux and other operating systems. This shows that 1) the encryption employed was insufficient and 2) it is indeed possible to lawfully view a DVD on other systems that aren't authorized and that haven't paid licensing fees to the MPAA. The MPAA is moving to block such use through lawsuits of those who write or distribute the rudimentary system that allows DVD playing under Linux.

In the future, stronger encryption may be employed on media such as DVDs and digital music, but it seems that there will always be a way to subvert such protections and allow the lawful use of such legally purchased mediums on devices other than those sanctioned by the copyright owners. The question we must ask is, "should copyright owners be allowed to control and limit where and how their works are viewed by consumers?"

Additionally, the scheme employed by DVDs allows for "geographic keys," which essentially render works unviewable on devices that are purchased outside

the same geographic area as the where the media are sold. This means that consumers buying DVD players and DVD movies in North America can expect that if they move to Europe, they will need to buy additional DVD players that can play DVDs purchased there, for example, while they must still retain their old DVD players to play their existing collections of DVDs. Certainly, this hampers the legal use of media purchased and used lawfully by consumers, and in fact, serves nothing but to increase the profits of those owning the copyrights at the economic expense of consumers.

Most DVD Movies are also available on traditional VHS media which contains no copyright protection system. The disadvantages of VHS, however, make it a poor choice for consumers in comparison to DVD. These disadvantages include price, longevity, deterioration, and size, among others. No computers are built with VCRs, so VHS tapes cannot be played directly in laptop or desktop computers. Likewise, many movies are now being released on DVD before they are released on VHS tape, so availability of such works is also hampered by choosing to use VHS instead of DVD. Some works are available only on DVD. In the future, a conservative prediction would tend towards more and more works being available only on media that contain protection systems.

Another disadvantage to DVDs is the restrictions they impose on traditional "fair use" of works. Currently, one can assemble a collection of short clips from movies or other video (in concordance with fair use law and precedence), place them all on a media, and then use that media in a classroom setting, for example. The mechanism that protects DVDs makes this type of use very difficult, since one cannot "record" segments of the work. Likewise, under fair use rules, an individual who legally obtains a copy of a copyrighted work can make his own complete copies of that work, as long as they are for his personal use alone (back-up, archival, transferall to other media, etc.). The DVD mechanism prevents such use. In the same way, use of a work in criticism, comment, reporting, teaching, and research is also hampered. There should be an exemption to the anti-circumvention rules for parties using the work to engage in these legal activities, including fair use.