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March 20, 2000

Regarding: Reply Comment upon Exception to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies

To Whom it Concerns:

I am writing on my own behalf to submit comment on the proposed Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access control technologies. I earn my living as an unaffiliated contract programmer, and advocate the development of "Open Source" technologies as a means of protecting technological freedom.

I firstly wish to express my complete agreement with the comments submitted on this topic by Robin D. Gross of the Electronic Frontier foundation, submitted to you February 17th 2000. I regard Gross and the EFF as thoughtful and upstanding protectorates of civil liberties, including those affected by the Digital Millenium Copyright Act of 1998 (DMCA).

My comments also address those submitted by Time-Warner, Inc., dated February 11th 2000 and by Tracy Camp, Citizen of Oregon, dated February 16th 2000.

As a software developer, I hold in high regard the protections afforded by United States copyright law with respect to protecting the development of new technologies and expansion of existing technologies into new applications. I also strongly favor the protection of the right of engineers to analyze existing works, both for the goals of producing new derivative works and establishing and correcting flaws in existing works.

As a crude example, consider the ramifications of engineers being forbidden to examine the steel-work in a newly constructed suspension bridge - and that permission to cross said bridge would be granted only upon consent to avoid such examination. Furthermore, engineers would be allowed to cross the bridge only in approved vehicles sold by the makers of the bridge. This analogy illustrates both of the major flaws inherent in the DMCA; if the consumers of a product are forbidden to examine its construction, defects may pass unseen through widespread deployment of a technology - and then may become abruptly apparent due to failures in that technology (as has happened more recently with the issue of DVD encryption). Additionally, a mandate that a specific item of technology may be used only in a narrowly defined way represents undue restraint upon the consumers of a commodity.

The media and recording industry has supported stringent new restraints upon the freedom of engineers to study existing technology - even when the technology manifests in a physical object they own. I suggest that any form of use which does not violate the ability of the makers of a form of media to market their works ought to be legally protected; this includes the right of someone who purchases a product to use that product in any way they choose, including but not limited to disassembly and study, reverse engineering, and unlimited usage as intended by its maker.

Until recently, the only way to play back a Digital Versatile Disc (DVD) was through the use of playback software either embedded within a conventional DVD player device (such as would be typically connected to a television set), or supplied by the manufacturer of a computer's peripheral DVD reader device. This latter hardware device reads the data from a DVD disc and supplies it to the software in encrypted form. The software, whose decryption code was licensed by the recording industry, has the responsibility to decrypt the contents of a DVD and thence display it to the user's screen.

This narrow level of usability was largely removed more recently when software developers developed methods to play back the contents of a DVD without needing to use software supplied by the DVD hardware manufacturer - which is to say, the ability to create another piece of software to play back DVD movies, amongst other uses.

Time-Warner, Inc., has asserted that it is unaware of any circumstance under which their copyrighted DVD and other materials would be made inaccessible "to persons who desire to be lawful users." This is patently false, as follows.

It should be noted at this point that the film industry-supplied DVD playback software was available on only a limited range of operating systems (Microsoft's Windows operating system family and Apple's MacOS operating system), and was generally of poor quality, providing a low-quality interface and prone to crashes. This presents two major difficulties: industry-provided software was unavailable except to prior purchasers of the above-cited commercial operating systems, and was deficient in quality, creating a nuisance for the user and potentially endangering other data stored on a computer used for DVD playback. An analogy may again be drawn at this stage, to a DVD player which only functions when connected to a specific model of television set, and which frequently catches fire.

The intention of the Linux DVD project ("Livid," et al) has always been the creation of open-source DVD playback software (for an explanation of Open Source and its ramifications, see http://www.opensource.org/ or consult the Open Source Initiative project at same location). It is not, and has never been, to provide a mechanism for illegal duplication of DVDs, as the film industry has claimed. These claims have been widely demonstrated as false even on their face, as retransmission of the contents of a DVD is technically unfeasible with existing technology. Further, physical-media replication by way of decrypting and re-recording the contents of a DVD is economically unfeasible, as blank recordable DVDs are projected to be more expensive than the original DVD itself. There would in any case be no need to decrypt the contents of a DVD to replicate it, as the media may be physically reproduced using existing technology, yielding the "perfect copy" spoken of by the film industry.

To summarize: the sole reason to produce open-source DVD playback software is to expand the methods whereby the legal owners of a DVD may view its contents, without prior restriction to specific operating systems or failure-prone software. To require that the owners of a DVD view its contents only on a specific set of operating systems constitutes illegal and inappropriate tying of a product to another. By the use of open-source playback software, the owner of a DVD is enabled to view its contents in a manner consistent with its manufacturer's intentions, and without harm to its maker. This software was made possible by the freedom of software engineers to examine the contents of DVDs and the functioning of existing playback software in order to construct similar free software to perform the same job without the above drawbacks.

I urge the protection of the rights to reverse-engineer software for purposes of enhancing existing technologies, expanding their availability, and protecting their viability to the consumer, under the guise of 'fair use' provisions. To do otherwise may endanger the development of technology and the exercise of intellectual freedom.

Thank you for your consideration.

Sincerely,

Devin Carraway < <u>dmca-box@devin.com</u>> Software Engineer, Citizen of California