Craig Markwardt
129 Westway Apt T2
Greenbelt, MD 20770
craigmnet@cow.physics.wisc.edu

David O. Carson
General Counsel, Copyright GC/I&R
P.O. Box 70400
Southwest Station
Washington, DC 20024
1201@loc.gov

Re: Comments on 17 USC Section 1201(a)(1), Digital Millennium Copyright Act

Dear Mr. Carson:

I am writing as a concerned individual regarding the "circumvention"
provisions of the Digital Millennium Copyright Act (DMCA). I urge you
to exempt ALL CLASSES of DIGITAL copyrighted works from the
prohibition against circumvention WHERE THE USE IS OTHERWISE
UNINFRINGING.

INTRODUCTION

Copyright owners are already protected against copyright infringement
by existing law. The DMCA extends those protections to include a
prohibition against circumventing access controls which might be
placed on the copyrighted work. However, these provisions may also
interfere with an information consumer's right to view and fairly use
copyrighted works. Indeed, members of both the House and Senate and
in both parties were concerned that the anti-circumvention provisions
would endanger consumers' rights and urged that the Librarian of
Congress consider this.

> Under the compromise embodied in the conference report, the
> Librarian of Congress would have authority to address the concerns
> of [...] information consumers potentially threatened with a denial
> of access to categories of works in circumstances that otherwise
> would be lawful today. I trust that the Librarian of Congress will
> implement this provision in a way that will ensure information
> consumers may exercise their centuries-old fair use privilege to
> continue to gain access to copyrighted works.
>
>   -- Senator John Ashcroft
>   Congressional Record, May 14, 1998, Page S4890

Similar sentiments were echoed by ranking commerce committee members in both houses.

THE LINUX COMMUNITY

The effects of the DMCA are currently already being felt by both programmers and users in the Linux community. Linux is one of a number of so-called "open source" operating systems. A distinguishing feature of open source programs is that the source code, the human readable instructions that express how a program functions, are freely available to copy and modify. Open source programs are typically developed by users who collaborate from around the world, and thus are often not controlled by any one person or entity. One might also consider open source projects truly Internet phenomena, since they require widely distributed and rapid communication and collaboration. I have had an opportunity to participate in a small open source project and it was very rewarding.

Linux, one of the most successful Unix-like open source operating systems to date, runs on consumer-level hardware, and has the potential to compete with consumer operating systems such as Microsoft's Windows.

The number of Linux users is substantial. In 1999 alone, approximately four million copies of Linux were shipped for the desktop (source: IDC survey), but this number may be considerably higher given that editions of Linux can be obtained for less than five dollars, or even for free, outside of commercial channels. Linux is also currently the fastest growing operating system (in terms of numbers of sales), which means that the number of users will likely increase quite substantially over the next three years.

Therefore, it must be recognized that any copyright access control mechanism that unavailable for Linux will essentially lock out a large segment of potential legitimate information consumers.

CURRENT DVD CASE

The Librarian and Register are perhaps aware of the current controversy surrounding Digital Versatile Discs (DVDs), which provide a good case study for DMCA implementation. DVDs can contain a high quality digital edition of a full-length motion picture, which are potentially playable in stand-alone electronic devices or on personal

computers equipped with a DVD drive. Linux itself does provide basic
support to access DVD drives at a hardware level.

However, most DVD discs contain information in a weakly encrypted form
which can only be decrypted by supplying a valid "player decryption
key." This special key is embedded in the player software, and must
be used for both authentication and decryption of the movie. Without
the key, playback in any form cannot proceed. Until recently, such
keys were available only from the DVD Copy Control Association (DVD
CCA) under significant cost and burdensome licensing requirements.

Currently, no sanctioned CCA player software DVD player exists for
Linux. In October 1999 a program known as DeCSS has become available
which circumvents the DVD access control system and permits playback.
This software is at issue in two ongoing civil lawsuits in California
(DVD CCA vs. McLaughlin et al) and New York (MPAA vs Reimerdes et al).
The heart of New York case is whether the distribution of DeCSS was
illegal under the DMCA.

Whether or not the encryption technique will eventually be considered
an *effective* access control, the encryption certainly does prevent
the same "casual" computer access which is possible with other media
such as compact discs. For Linux users, the use of DeCSS is currently
the *only* way to decrypt, and thus view, their lawfully purchased DVD
movies. Without DeCSS, the data is obviously garbled and neither
sound nor picture can even be formed.

It should be pointed out that to date, there have been no reports of
illegal DVD copying that can be traced to DeCSS. Further, there is no
evidence that the availability of DeCSS has hurt the markets for DVDs.
Indeed, the sales of DVD players, DVD discs, and DVD rental services
have been increasing strongly (source:
http://news.cnet.com/news/0-1006-200-1509569.html).

Furthermore, a true pirate bent on making infringing copies of a movie
would not need to decrypt the movie to copy it. Thus, the question
arises whether the presence of the encryption will deter illegal
copiers at all. If encryption simply prevents access and not copying,
how can it foster progress in the arts and science, as Congress and
the Copyright Office are charged to do?

Active on-line users and programmers have often been branded as
"hackers" or "pirates," fostering an image of lawlessness and reckless
disregard for property rights, but at its best this is simply
name-calling. There exist many everyday law-abiding Linux users who
have legally purchased DVD movies and wish to view them under the fair

use doctrine. Could *all* four million of the 1999 estimated Linux purchasers be criminals? Of course not.

I can only conclude that encryption embedded on DVDs is *currently* preventing legitimate fair use viewing of DVD movies, and given the litigation initiated by the DVD CCA and MPAA, may forbid fair use for a very long time.

FUTURE OUTLOOK

Questions of "commercial value" tend to be difficult to answer when it comes to open source projects such as Linux. Generally speaking the internal source code of open source programs is available to, and modifiable by, anybody who chooses to do so. Therefore, the "commercial value", if any, often does not lie in the program itself, since anybody is permitted to freely copy it, but in the *services* associated with distributing and supporting it. Almost all companies that have built businesses around open source programs, such as Red Hat, LinuxCare, and Sendmail, base their business model on providing packaging and support rather than the programs themselves.

Unfortunately, this business model is not perfect. It is not clear that an "authorized" open source DVD player could be developed in the next three years (i.e., a DVD CCA sanctioned player). There are significant up-front licensing costs associated with player construction. Also, the DVD CCA requires a signed non-disclosure statement, which would forbid the dissemination of DVD specifications.

Both of these factors are barriers to the implementation of a licensed open source player for Linux. Non-disclosure statements prevent the very collaboration which makes open source such a powerful development model. The up-front costs are difficult to recoup since open source development groups are often loosely-knit and even in different countries. And, as already mentioned, it is difficult to sell the *software* itself for Linux. A commercial Linux DVD player would also be at a price disadvantage to Windows players, which are often given away for free as "loss-leaders," either by video adapter manufacturers, or on the DVD discs themselves.

CONCLUSION

Consumers must be allowed to exercise their fair use rights over copyrighted works that they legally obtain. Congress recognized that fair use rights must be retained, and thus granted the Librarian of

Congress considerable power to establish which classes of copyrighted works should be exempted to preserve those rights.

However, copyright owners must still be protected, so that infringing uses remain prohibited. Therefore, the decision of which classes of works to exempt from the prohibition against circumvention *must* address the particular circumstances of the situation. For example, if a I legally purchase a DVD movie, then I must be entitled to view the movie personally; I purchased it for no other reason!

The arguments I have supplied here apply equally well to digital music and literature, and to new forms of content such as "streaming" video. In any situation where there are copyright access controls on copyrighted content, a person should be permitted to circumvent those controls, if in so doing they are exercising their fair use rights and not otherwise infringing. I therefore urge you to exempt all digital copyrighted works from the prohibition against circumvention devices under those circumstances.

Finally, I am not sure that the distinction between unauthorized access and unauthorized copying can be made in many circumstances. Clearly copying can be permitted under the fair use doctrine, and is indeed required for most digital content to be realized. However, the two activities are intertwined, since copying also requires access. The question then becomes *who* defines what is "unauthorized." I submit that any information consumer who lawfully obtains digital content, such as a DVD movie, is entitled to view or listen to their content, and hence must be considered "authorized" to access it as well.

Please consider these issues as you deliberate. I urge you to allow fair access to copyrighted works by *all* computer users.

Craig Markwardt