Before the
Library of Congress
Copyright Office
Washington, D.C.

In The Matter of)	
)	
Exemption to Prohibition on Circumvention)	Docket No. RM 2005-11
Of Copyright Protection Systems for)	
Access Control Technology)	

COMMENTS OF
THE INTERNET ARCHIVE

February 1, 2006

Re: RM 2005-11 –17 USC §1201 Exemptions Notice of Inquiry

Proposed classes of works:
1) *Computer programs and video games distributed in formats that have become obsolete and that require the original media or hardware as a condition of access.*
2) *Computer programs and video games distributed in formats that require obsolete operating systems or obsolete hardware as a condition of access.*

Thank you for this opportunity to write in reply to the above proposed exemption from

§1201 of the Digital Millennium Copyright Act.

As we mentioned in our initial comment, the Internet Archive has benefited greatly from

the exemption granted in 2003, which corresponds to proposed class of works (1), above, and

believes that others have benefited as well. Having reviewed all the initial comments filed with

the Copyright Office by others for this round of rulemaking in 2006, it appears that none of the

comments provide examples which specifically support the Internet Archive's proposed

exemptions. However, a few of the other comments, including Comment 19 submitted by Jesse

Litton, and Comment 21 submitted by Herbert Robinson, do provide examples illustrating a

general concern that is related to our second proposed exemption. We therefore would like to take this opportunity to (1) provide further evidence in support of our first proposed exemption, and (2) explain further the rationale of our second proposed exemption and how it relates to some of the general concerns expressed in Comments 19 and 21.

1) *Computer programs and video games distributed in formats that have become obsolete and that require the original media or hardware as a condition of access.*

1. Additional Evidence In Support Of Our First Proposed Class

Since our initial comment explains in detail why the Internet Archive is seeking a renewal of its 2003 exemption, we will not repeat our previous arguments here. However, we would like to point out additional examples of digital works that the 2003 exemption is helping us to archive.

As an example of why we are asking for a renewal of this exemption, the Internet Archive intends to continue its collaborative effort with the Software Preservation Society to preserve outdated software. An extensive list of video games which the Internet Archive intends to archive can be found on the Software Preservation Society's home webpage, http://www.softpres.org/?id=games.[1] It includes such games as:

   (1) "Terminator 2, Judgment Day," a game released in 1991 reflecting a growing

   relationship between video games and cinema in modern times[2];

   (2) "Killing Machine," a game released in 1990, representing one of the relatively

   early examples of an association between violence and video games;[3] and

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[1] The Software Preservation Society, formerly known as the Classic Software Preservation Society, is linked to the Internet Archive's website at http://www.archive.org/details/clasp.
[2] http://hol.abime.net/1343
[3] http://hol.abime.net/2576

(3) "Sim Life," an educational game released in 1993 where players get to create life

on a simulated planet, and then adjust settings to shape evolution.[4]

The Internet Archive is already in the process of archiving these games thanks to the

current exemption, and plans to continue its archiving activity if our proposed exemption is

renewed. This collaborative effort with the Software Preservation Society represents only the

tiniest fraction of the valuable archiving activity in which we engage. We urge the Copyright

Office to grant a renewal of the class granted in 2003, our first proposed exemption.

2) *Computer programs and video games distributed in formats that require obsolete operating systems or obsolete hardware as a condition of access*

1. Summary Of Argument For Our Second Proposed Class

As explained in the Internet Archive's initial comment, this second proposed exemption

is intended to address computer programs and video games that are not necessarily stored on

obsolete formats but that require an obsolete operating system or obsolete hardware for proper

functionality. Just as is true of programs and games in obsolete formats, these works are also at

risk of being lost unless they can be effectively archived. As explained in our original comment,

the process of archiving involves the use of "emulators" that would permit these works to be run,

for quality control purposes, on platforms other than those for which they originally were

designed. This step in the archiving process may, however, constitute a violation of Sec. 1201(a).

Therefore, we propose an exemption for this class of works only if, and only to the extent

that, the Copyright Office determines that such practical restrictions on access created by the

lack of backward compatibility in new software and hardware platforms constitute

"technological protection measures" within the meaning of the Digital Millennium Copyright

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[4] http://hol.abime.net/1938

Act. In other words, this second proposed exemption may not be necessary if "obsolete

hardware or operating systems" do not actually constitute "technological protection measures"

within the meaning of 17 U.S.C. §1201, but to the extent that it is necessary, we respectfully ask

that it be granted.

2. Argument

This second class is slightly different from the first proposed class of works we proposed

in that certain computer programs or video games do not necessarily need original media or

hardware as a condition of access, but nevertheless function only on certain operating systems or

with certain hardware. For example, certain computer programs or video games in non-obsolete

formats, such as CD-ROMs, may still require obsolete hardware or operating system

combinations to run. In order for the Internet Archive to properly archive those programs, we

need to emulate the hardware or operating system combination, which may trigger DMCA

liability.

For a variety of reasons, it is unclear to us whether hardware or operating systems which

have faded into obsolescence constitute "technological protection measures" within the meaning

of the DMCA. First, the term "technological protection measure" is not specifically defined in

the text of the DMCA or in its legislative history. Second, there is a scarcity of case law

interpreting the phrase "technological protection measure."[5] Third, the term itself is broad

enough to potentially encompass a wide range of bars to access, including those obsolete

hardware or operating systems that were never intended to control access, but effectively do.

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[5] One of the few cases addressing the issue is <u>Pearl Invs., LLC v. Std. I/O, Inc.</u> 324 F. Supp. 2d 43, 46 (D. ME 2004)
(approving jury instructions based on the statute, stating: "A technological measure 'effectively controls access to a
work' if the measure, in the ordinary course of its operation, requires application of information, or a process or a
treatment, with the authority of the copyright owner, to gain access to the work. To 'circumvent a technological
measure' means avoid bypass, remove, deactivate or impair a technological measure without the authority of the
copyright owner.") These instructions, however, did not contain a definition of "technological protection measure"
as such. Nor did the decision address whether a technological bar must be one actually applied with the intention of
restricting access in order to qualify.

Within this category would fall the practical barriers to accessing some digital works without the use of obsolete hardware or operating systems.

In light of this uncertainty, the Internet Archive is requesting an exemption for "computer programs and video games distributed in formats that require obsolete operating systems or obsolete hardware as a condition of access."

a. Specific Examples From The Internet Archive

One specific example supporting our proposed second exemption can be found in one of the four granted exemptions in 2003, an exemption for the class of works entitled "computer programs protected by dongles that prevent access due to malfunction or damage and which are obsolete."[6] A dongle is an example of obsolete hardware that would potentially frustrate the archiving activities of the Internet Archive. Without the 2003 exemption for "computer programs protected by dongles that prevent access due to malfunction or damage and which are obsolete," the Internet Archive could not legally circumvent this obsolete piece of hardware to create an emulator program, and consequently, would lose the ability to archive any digital works protected by the dongle. However, the problem to which the current exemption request is addressed is not restricted to dongles.

Another example supporting our second proposed exemption is an example we discussed in our initial comment, the early video game "Robocop 3." Access to Robocop 3 is restricted in the sense that it was designed to be exclusively compatible with the Commodore Amiga operating system, which has become obsolete as well as requiring dongle hardware, which has also become obsolete. To verify that we have accurately preserved copies of video games such as Robocop 3, it is necessary to emulate both the obsolete operating system <u>and</u> the physical dongle, which then may trigger DMCA liability. Even if Rocobop 3 was distributed in a non-obsolete

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[6] http://www.copyright.gov/1201/2003/index.html

format like a CD-ROM, the need for circumvention still exists due to the obsolete operating system and hardware.

b. Response to Comments 19 and 21

The Internet Archive generally notes that other commentators in the initial round of submissions appear to be addressing concerns about the legality of bypassing the practical barriers to access that arise when computer programs are compatible only with obsolete hardware or operating systems. Thus, for example, Comment 19 (submitted by Jesse Litton) proposes a class entitled "computer programs protected by mechanisms which restrict their full operation to a platform or OS (operating system)." This commentator noted that users upgrading their operating systems often have to reverse engineer in order to use legally protected software.

The language of the Internet Archive's proposed exemption is narrower than that of Comment 19 in at least one crucial respect: It is limited to situations in which the hardware or operating system platform to which a program is tethered can be considered "obsolete." For its own archiving purposes, the Internet Archive believes that a grant of our second proposed exemption would allow the Internet Archive to broaden the scope of its valuable archiving activity without in any way harming the interests of copyright owners. In so doing, it might also provide limited relief for the more general concerns expressed in Comment 19.[7]

Comment 21 (submitted by Herbert Robinson) expresses a related concern. In the Comment, the commentator described how obsolete operating systems pose serious huddles to individual users who are prohibited from accessing their own legally purchased and even legally

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[7] Comment 19 notes that the incompatibility of old software and newer platforms sometimes results from the fact that "anti-piracy" mechanisms are not updated when new hardware and new operating systems are released. To the extent that this is correct, it suggests a rationale classifying at least some compatibility-based access bars as "technological protection measures" within the meaning of Sec 1201.

created works due to the obsolete nature of the copyright protection.[8] Specifically, the

commentator described how he was personally affected by the transition from the Macintosh OS

9 system to the Macintosh OS 10 or "O X" system, which effectively prevented him from editing

or printing out saved sheet music of his own musical compositions, created through a program

called "Composer's Mosaic" (Version 1.58, produced by Mark of the Unicorn). Again, the

specific problem encountered by this commentator might or might not be resolved by the narrow

exemption that the Internet Archive now seeks. But the presence of this in the record underlines

the existence of a general issue that should be addressed in this rule-making.

Conclusion

The two proposed exemptions are crucial to the archiving activity of the Internet Archive,

as well as to society at large. The proposed exemptions should be granted because they are

narrowly tailored, protect important non-infringing archival uses of these works, and do not

damage the interests of copyright holders in the least. The Internet Archive has already relied on

the first proposed exemption to successfully verify the accuracy and completeness of thousands

of archived digital works, and hopes that it can soon rely on the second proposed exemption as

well. We respectfully request a renewal of the exemption for the first proposed class of works

and a new exemption for the second proposed class of works.

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[8] http://www.copyright.gov/1201/2006/comments/robinson.pdf

Respectfully submitted,

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