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On behalf of the Internet Archive
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July 7, 2003

Office of the General Counsel
US Copyright Office, L-M 403, James Madison Memorial Building
101 Independence Avenue S.E.
Washington D.C. 20024-0400

Re: RM 2002-4-17 USC § 1201: Request for Supplemental Information

Class of Work: Literary and audiovisual works embodied in software whose access control systems prohibit access to replicas of the works

I am writing in response to David Carson's June 20, 2003 written request for further information relating to our proposed exemption. I appreciate this opportunity to further clarify our position.

1. Specific Technological Measures

“What specific technological protection measures has the Internet Archive encountered that have prevented the Internet Archive from preserving works, and what specific works have they been applied to? Please enumerate the identifiable works that are adversely affected by the prohibition and explain as specifically as possible exactly how the technological protection measures you identify operate to prohibit access.”

While not an exhaustive list, below are three examples of specific access devices that have hampered the Internet Archive's work. As we understand, any attempt to disable these devices, or others like them, could create liability under Section 1201(a)(1).

a. Physical 'dongle' access protection

This protection requires a specific piece of hardware, known as a “dongle” device be inserted into a peripheral port on the original hardware. The software will not function without verifying that the dongle is present. The verification is accomplished either by passing a signal

to the dongle and checking to see if the signal comes back to the original hardware, or in more complicated instances, accessing information contained on the dongle. It is impossible to archive this software on preserved backups because hardware dongles are difficult to find and even if the dongle is acquired the peripheral ports to plug in the dongle do not exist on new computer models.

There are hundreds of titles affected by this access device including some very important early productivity and leisure software such as; "Leaderboard" for Commodore 64, "Robocop III" for Commodore Amiga, "Cubase" for Atari ST, "Lightwave" for Commodore Amiga, "AutoCAD" for early PC, and "Impression" for the Acorn Archimedes.

b. 'Lenslok' lens-based access protection

This is an exotic access protection system for Sinclair Spectrum systems and works by holding a plastic lens up to the screen to decode a password that allows the user to access the title. It was notoriously unreliable when first introduced. Today, when working with a backup version of the software on more modern formats, the resolution and size of the image to be viewed with the Lenslok will differ and the code will be impossible to read. Additionally, it is very difficult to locate the Lenslock plastic lens.

There are at least ten Sinclair Spectrum titles affected by this including; "ACE," "Art Studio" (the seminal 3D space adventure game), "Elite," "Jewels of Darkness," "Price of Magik," "Tomahawk" and "TT Racer."

c. CD-ROM-based access protection

As discussed at the hearing on May 14, it is possible to completely extract and archive the data from many CD-ROMs. The access protection, however, requires a physical CD-ROM in a CD-ROM hard drive for the program to be loaded and operated. Thus, while a copy can be made, it can never be accessed and the data, for all purposes, is lost.

Last year, Macromedia Archive began working with the Internet Archive to permanently preserve their collection consisting of over 10,000 CD-ROMs. Without the proposed exemption, many of these software titles cannot be archived, meaning once the CD becomes unreadable many if not most of these titles will never be seen again. Among this lost software will be important early CD-ROM material including the Voyager CD-ROM archives. Attached as "Exhibit A" is a list of the titles contained in the Voyager archive. This archive represents a small percentage of the total Macromedia Collection.

d. Floppy disc-based access protection

Like CD-ROMs, it is possible to extract and copy the data from most 3 ½ or 5 ¼ inch floppy discs. The problem with access arises after creating the archive copy on modern media. The data cannot be accessed and read because the program on the disc is looking for the existence of a floppy disc drive. Consequently the data is, for all purposes, lost.

This problem exists in the case of all non-cartridge-based media or about 90 percent of the 15,000 plus titles in Stanford's Cabrinety collection, one of the most extensive historical software collections in the world. For example, all of the titles discussed in the May 14 hearing, some of the most important titles in the evolution of gaming and processing, would be permanently inaccessible, including; "Tetris," "Sim City," "Lotus 1-2-3," "Microsoft Basic," "IBM DOS," "Apple Writer 1.1," "Populous," "Project Space Station," "Macintosh System Software 7.0," "Shogun," "Quicken," "Visicalc," and "Robocop III."

2. Category of Work

Is the problem that the proposed exemption is meant to address one that is limited to the categories of works specified in your initial comment, or is it a problem that is likely to occur to all (or most) categories of works?

Yes, the proposed exemption is limited to the class of works we proposed but no, other works will not be similarly affected. The Internet Archive's proposed exemption is narrowly tailored to encompass only those works whose legitimate use is currently prohibited under the DMCA. The Archive is not a copy and distribution center for copyrighted material. Instead, the proposed class allows circumvention of access control devices attached to only literary and audiovisual works embodied in software. Microsoft Press' Computer Dictionary defines software as, "computer programs; instructions that make hardware work." As such, the category of works is limited. It does not encompass some of the more broadly drawn proposed categories suggested in other comments. For example, music CDs, DVD movies and downloadable digital books will not be items subject to the terms of our proposed exemption. Similarly, online registration/authentication schemes are not subject to the proposed exemption.

3. Use of Work

What is the purpose of the archival activity that has been prevented by technological protection measures? What does the Internet Archive do with the works it has preserved? Is your activity limited to verifying and maintaining the integrity of the archived work in a "dark archive," or does it also involve dissemination of the migrated material to the public? If the latter, in what ways is the material disseminated or intended to be disseminated to the public?

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Like a paper library the Archive also provides free access to researchers, historians, scholars and the general public. The Archive is housed in our offices in San Francisco, CA. Everything in our collection is kept at the same location. We understand that under Section 108 many of the works can be legitimately accessed on-site and we want to be able to provide that access. We do not offer copy or download service and because of the small size of the office, visitors can be monitored. In the case of some works we are given permission to show and allow access to all. Only those works donated with permission to allow access to all or works in the public domain are available via our website. If we are notified that a work has been erroneously added to the website we immediately remove the content.

The purpose of the archival activities undertaken at the Internet Archive, and other organizations like it, is to preserve digital works. Whether they are preserved in a “dark archive,” made available to the public due to copyright expiration, permissively used under Section 108 or the author grants express or implied permission for use, does not change the analysis of our proposed exemption. Even in the case of works that cannot be made available to the public, archiving is necessary to preserve them for future expiration of copyright protection or permission from the author. Such a “dark archive” will be useless unless we have access to the copy to verify that the archival activity is successful. In order to check the replica we are required to circumvent any access protection measure associated with the data.

I hope this additional information clarifies our need for the proposed exemption. Without the ability to access these works our mission and the mission of similar organizations will be completely frustrated. Please feel free to contact me if I can provide any other clarification.

Sincerely,

Brewster Kahle
On behalf of The Internet Archive

EXHIBIT A

A

All My Hummingbirds Have Alibis
Amandastories
American Poetry
Amnesty Interactive

B

Bach and Before: So I've Heard Vol. 1
Baseball's Greatest Hits
The Beat Experience
Beethoven and Beyond: So I've Heard Vol. 3
Beethoven: Symphony No. 9
Betye Saar

C

Children's Songbook
Cinema Volta
The Classical Ideal: So I've Heard Vol. 2
Comic Book Confidential
The Complete Maus
Countdown

D

The Day After Trinity
Dazzeloids
Dracula: Truth and Terror
Dvorak: From The New World

E

Ephemeral Films
Exotic Japan

F

First Emperor of China
First Person: Donald Norman
First Person: Marvin Minsky
First Person: Mumia Abu-Jamal
First Person: Stephen Jay Gould

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For All Mankind

Franz Schubert: The "Trout" Quintet

Freak Show

Fun With Architecture

G

H

A Hard Day's Night

I

I Photograph to Remember

If Monks Had Macs

Invisible Universe

J

K

Kon-Tiki

L

Last Chance To See

The Louvre: Museums of the World for Kids

M

Macbeth

Making Music

Making More Music

Mensa MindTeasers

Mozart: The "Dissonant" Quartet

N

New Voices New Visions

New Voices, New Visions 1995

O

Our Secret Century 1&2

Our Secret Century 3&4

Our Secret Century 5&6

Our Secret Century 7&8

Our Secret Century 9&10

P

Painters Painting
Planetary Taxi
Poetry in Motion
Poetry in Motion II
Puppet Motel

Q

R

Richard Strauss: Three Tone Poems
Rodney's Wonder Window

S

Salt of the Earth
Shining Flower
A Silly Noisy House
Sound Toys CD
Stravinsky: The Rite of Spring

T

Take Five
Theatre of the Imagination
This is Spinal Tap
Treasures of the American Museum of Natural History
Truths and Fictions

U

Understanding McLuhan

V

Van Gogh: Starry Night

W

Who Built America?
With Open Eyes
Witness to the Future
A World Alive