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UNITED STATES COPYRIGHT OFFICE



**Long Comment Regarding a Proposed Exemption Under 17 U.S.C. § 1201**

*Please submit a separate comment for each proposed class.*

***NOTE: This form must be used in all three rounds of comments by all commenters not submitting short-form comments directly through regulations.gov, whether the commenter is supporting, opposing, or merely providing pertinent information about a proposed exemption.***

***When commenting on a proposed expansion to an existing exemption, you should focus your comments only on those issues relevant to the proposed expansion.***

**[ ] Check here if multimedia evidence is being provided in connection with this comment**

*Commenters can provide relevant multimedia evidence to support their arguments. Please note that such evidence must be separately submitted in conformity with the Office's instructions for submitting multimedia evidence, available on the Copyright Office website at <https://www.copyright.gov/1201/2021>.*

**ITEM A. COMMENTER INFORMATION**

Library Copyright Alliance

Contact information:

Jonathan Band  
Counsel, Library Copyright Alliance  
301-770-0822  
[jband@policybandwidth.com](mailto:jband@policybandwidth.com)

**ITEM B. PROPOSED CLASS ADDRESSED**

Proposed Class 5: Audiovisual Works—Preservation

Proposed exemption: Motion pictures (including television shows and videos), as defined in 17 U.S.C. § 101, where the motion picture is lawfully acquired on a DVD protected by the Content Scramble System, or on a Blu-ray disc protected by the Advanced Access Content System, and is no longer reasonably available in the commercial marketplace, for the purpose of lawful preservation of the motion picture, by a library, archives, or museum.

**Privacy Act Advisory Statement:** Required by the Privacy Act of 1974 (P.L. 93-579)  
The authority for requesting this information is 17 U.S.C. §§ 1201(a)(1) and 705. Furnishing the requested information is voluntary. The principal use of the requested information is publication on the Copyright Office Web site and use by Copyright Office staff for purposes of the rulemaking proceeding conducted under 17 U.S.C. § 1201(a)(1). NOTE: No other advisory statement will be given in connection with this submission. Please keep this statement and refer to it if we communicate with you regarding this submission.

## **ITEM C. OVERVIEW**

The Library Copyright Alliance (“LCA”) seeks an exemption to permit libraries, archives, and museums to circumvent the technological protection on Digital Versatile Discs (“DVDs”) and Blu-ray discs for the purpose of preservation of motion pictures stored on those media. This exemption would build on existing exemptions for the preservation of video games and software, as well as the many exemptions granted to enable the lawful use of DVDs and Blu-ray discs. The exemption is necessitated by the deterioration of the discs in the collections of libraries, archives, and museums, for which replacements often are not available.

LCA consists of the American Library Association, the Association of College and Research Libraries, and the Association of Research Libraries. These associations collectively represent over 100,000 libraries in the United States employing more than 300,000 librarians and other personnel.

## **ITEM D. TECHNOLOGICAL PROTECTION MEASURE(S) AND METHOD(S) OF CIRCUMVENTION**

DVDs are protected by the Content Scrambling System, and Blu-ray discs are protected by the Advanced Access Content System. The same types of software would be used to circumvent these technologies as a currently used under the existing DVD and Blu-ray exemptions.

## **ITEM E. ASSERTED ADVERSE EFFECTS ON NONINFRINGEMENT USES**

### ***The proposed class includes works protected by copyright.***

The works in the proposed class are motion pictures (including television shows and videos), as defined in 17 U.S.C. § 101. The works in the class are the same as those in the existing exemptions for audiovisual works for criticism and comment. They include works protected by copyright.

### ***The uses at issue are noninfringing under Title 17.***

For purposes of this discussion, the proposed exemption is for on-premises uses of the preservation copies, as in 17 U.S.C. § 108(b) and (c) and the existing video game and software preservation exemptions. However, proposed classes 14a and 14b petition for expansion of the videogame and software preservation exemptions to off-premises uses. If the Register recommends the granting of those petitions, LCA requests that this class be expanded to include off-premises uses of the preserved motion pictures, particularly educational uses.

Libraries, archives, and museums seek to preserve motion pictures stored on discs that have already started to deteriorate. They also seek to engage in preemptive preservation. Reproduction of motion pictures on deteriorating discs is permitted under 17 U.S.C. § 108(c), which permits duplication “solely for the purpose of replacement of a copy or phonorecord that is damaged, deteriorating, lost, or stolen....” However, as noted by the Acting Register in 2018 in her recommendation supporting an exemption for software preservation, section 108(c)’s “three-copy limit does not adequately accommodate the requirements of modern digital preservation

practices.” U.S. Copyright Office, *Section 1201 Rulemaking: Seventh Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention 237* (2018) (“2018 Recommendation”) (citations omitted). Thus, section 108(c) on its own is insufficient to permit modern digital preservation of motion pictures on deteriorating discs. Moreover, section 108(c) does not reach preemptive preservation of motion pictures on discs that have not yet begun to deteriorate. Accordingly, we look to fair use to demonstrate that the proposed activities are likely noninfringing.

Reproduction of works by libraries, archives, and museums for the purpose of preservation is a quintessential fair use, as found by the Acting Register in 2018 in her recommendation supporting an exemption for software preservation. With respect to the first use factor, she stated:

the legislative history and case law make clear that library and archival preservation is a favored purpose under the fair use analysis. Moreover, as the Register previously recognized, section 108 “highlight[s] Congress’s recognition of preservation as an important social activity” and generally indicates “the types of uses that are most likely to qualify as fair in this area.” Here, the proposed exemption incorporates most of the key conditions in that provision, namely that the preservation activity must be undertaken by an institution meeting specified public access requirements, that no copies may be made available to the public outside the institution’s premises, and that the use may not be for purposes of commercial advantage. The Acting Register accordingly concludes that, even if the proposed uses would not be found transformative, their purpose and character are of a type that favors fair use.

2018 Recommendation at 242.

With respect to the second factor, the Acting Register acknowledged “the proposed class also includes video games, which are often highly expressive in nature.” *Id.* at 243. Nevertheless, the Acting Register noted that “the Register previously concluded that the second factor did ‘not necessarily negate a finding of fair use’ where the copying and modification of video games were ‘necessary to allow continued legitimate use of the work.’ The same conclusion applies here.” *Id.* Therefore, the Acting Register concluded “that while this factor is not necessarily favorable to fair use, it is of limited significance in the analysis.” *Id.*

Regarding the third factor, the Acting Register agreed with the proponents’ contention that copying the entire work was reasonable in relation to the purpose of the copying: preservation. *Id.* She found that

[t]he record indicates that ‘current digital preservation practices are universally predicated on data migration,’ a process that frequently requires making complete copies. The evidence further indicates that proponents seek to modify programs only to the extent necessary to allow them to perform their original functions on modern computer systems. The Acting Register accordingly concludes that this factor does not weigh against a fair use finding.

*Id.* at 244.

Turning to the fourth factor, the Acting Register agreed with proponents “that there is little risk of market harm in light of the proposal’s significant limitations on qualifying users, uses, and works.” *Id.* at 245. The Acting Register observed that

as the Register concluded in recommending the current exemption for video game preservation, “allowing circumvention by appropriate entities solely for noncommercial preservation and research purposes—without distribution to or offsite access by members of the public, consistent with section 108—would not appear to carry a significant risk to the market.” That conclusion is particularly sound in this class, which is limited to programs no longer reasonably available in the commercial marketplace....The Acting Register accordingly concludes that this factor favors fair use.

*Id.*

Based on her analysis of the four factors, the Acting Register found that “proponents have met their burden of showing that the proposed uses are likely to be fair.” *Id.* The same analysis applies here. The same kinds of institutions (libraries, archives, and museums) would be engaged in the same kind of activity (reproduction for preservation) under the same conditions (only works not reasonably available in the commercial marketplace and only on-premises use). The only difference is that in this petition proponents seek to preserve motion pictures rather than software. But as discussed below in more detail, the need to preserve motion pictures is just as compelling as the need to preserve software.

In her 2018 finding that software preservation likely was fair, the Acting Register relied heavily on the Register’s 2015 finding that video game preservation was fair. U.S. Copyright Office, *Section 1201 Rulemaking: Sixth Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention* 343-44 (2015) (“2015 Recommendation”).

***Users are adversely affected in their ability to make preservation copies of motion pictures.***

1. Libraries, archives, and museums have large collections of motion pictures stored on DVDs and Blu-ray discs. Academic libraries, for example, have 123 million audiovisual material units. Nat’l Ctr. for Educ. Statistics, U.S. Dep’t of Educ., *Academic Libraries: 2012* (2014). A significant portion of these units are stored on DVDs and Blu-ray discs. For example, 78 percent of Emory University’s Music and Media Library video collection consists of DVD and Blu-ray discs.<sup>1</sup>

2. Many of these discs are degrading due to a phenomenon referred to as “disc rot.” DVDs and Blu-ray discs were initially marketed as having great longevity because a polycarbonate layer

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<sup>1</sup> The complete breakdown of the 41,642 titles in the collection is as follows: DVD—29,813; Blu-ray—3,014; VHS—6,440; Laserdisc—1,673; 16mm prints—504; VCD—198.

protects the reflective aluminum data layer, and the data layer remains untouched during playback, in contrast to a stylus on a vinyl record or the heads on a tape player. However, the data layer can still be damaged due to “chemical reactions with the reflective layer of the disc, ultraviolet light damage, scratches that expose the delicate and corrosive layer to environment factors, or the deterioration of manufacturing materials.” Worried About Disc Rot? Here’s How to Look After Your CDs, <https://blog.discogs.com/en/say-no-to-disc-rot-how-to-look-after-cds/>, Feb. 4, 2019.

According the Council on Library and Information Resources,

Disc longevity is determined by the extent to which its aluminum layer is exposed to oxygen. Oxygen, including pollutants, can migrate through the polycarbonate layer...carried in by moisture. Oxygen or moisture can more easily penetrate through scratches, cracks, or delaminated areas in the label. Oxygen can also be trapped inside the disc during manufacturing....

If left in a very humid environment, moisture-and oxygen-will eventually reach the aluminum, causing it to lose its reflectivity. The normally shiny aluminum, which resembles silver, becomes oxide-dull and much less reflective, like the color of a typical aluminum ladder. The combination of high humidity and increased temperatures will accelerate the oxidation rate.

The life expectancy of a ROM disc therefore depends on the environmental conditions to which it is exposed over time.... Other contaminates, however, such as inks, solvents, and pollutants, have the potential to irreversibly penetrate and to deform, discolor, or corrode the disc, causing permanent reading problems for the laser.

Council on Library and Information Resources, *How Long Can You Store CDs and DVDs and Use them Again?*, <https://www.clir.org/pubs/reports/pub121/sec4/> (“CLIR”).

Michele Youket, a preservation specialist at the Library of Congress, described disc rot as a “kind of silent destruction, which shows up in three different forms—the ‘bronzing’ of discs, small pin-hole specs located on the discs, or ‘edge-rot.’” Ernie Smith, *The Hidden Phenomenon That Could Ruin Your Old Discs*, Motherboard, <https://www.vice.com/en/article/mg9pdv/the-hidden-phenomenon-that-could-ruin-your-old-discs>, Feb. 6, 2017.

DVDs can suffer delamination, when the polycarbonate layer separates from the data later. The delamination enables environmental factors such as heat and humidity to accelerate the oxidation of the data layer.

The user typically does not notice early degradation because the error detection and correction capability built into disc players corrects some of the errors. The user notices a problem only when the error correction coding is unable to fully correct the errors. Although the data layer typically will degrade before the polycarbonate layer, physical mishandling or improper storage (e.g., in a horizontal position) can damage the polycarbonate layer. CLIR.

Manufacturing issues at specific pressing plants have resulted in more disc rot. For example, the DVDs produced by Warner Bros. between 2006 and 2008 developed disc rot soon after production. Wikipedia, *Disc Rot*, [https://en.wikipedia.org/wiki/Disc\\_rot](https://en.wikipedia.org/wiki/Disc_rot). Until 2010, Warner Bros. manufactured their DVDs at the Cinram plant in Olyphant, Pennsylvania. In 2010, Warner switched to the Thomson/Technicolor plant in Mexico. This seemed to resolve some of the manufacturing issues. Similarly, many of the Blu-ray discs produced by the Criterion Collection have exhibited disc rot.

Media librarians have reported disc rot and other forms of damage with many discs in their collections.<sup>2</sup>

James Steffen with the Woodruff Library at Emory University states that “data layer degradation on DVDs and Blu-rays is a very real issue.” It can be particularly problematic with discs manufactured at a specific plant during a specific time frame. “The urgent problem is that in many cases DVD/Blu-ray releases only have a single pressing or limited number of pressings, so it can potentially affect ALL of the copies that were ever produced of that title. Buying a new or used replacement copy of the same title may not help at all for that reason.”

Steffen provided the following examples of titles held by Emory that are “affected by data layer degradation on a widespread basis:”

- *Joan Crawford Collection Volume 2* (including *A Woman’s Face*, *Sadie McKee*, *Strange Cargo*, *Torch Song*, and *Flamingo Road*) (Warner Bros. 2008)
- *Reflection in a Golden Eye* (Warner Bros. 2006)
- *Rise of the Planet of the Apes* (Blu-ray) (Twentieth Century Fox, 2011)

Steffen noted that disc rot is discussed frequently on collectors’ forums, such as <https://www.hometheaterforum.com/community/threads/warner-dvds-not-working-thread-watch-to-make-sure-they-still-play.351260/> and <https://forum.blu-ray.com/showthread.php?t=249210>. Steffen stated that the deterioration can happen rapidly. Criterion Blu-ray discs manufactured in 2010 experienced widespread deterioration by 2014. Criterion instituted a disc replacement program, see <https://www.criterion.com/current/posts/3317-exchanging-defective-discs>, but most manufacturers have not adopted comparable policies.

Steffen also mentioned the damage to discs caused by use. “The problem has become worse over the last decade since most users now are not watching DVDs on regular set-top players with flat trays. They are either inserting them directly into laptops or playing them on external DVD-ROM drives. Both are **\*really\*** hard on discs.”

Steffen observed that standard DVD packaging is another frequent source of damage. Many

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<sup>2</sup> This petition reflects information gathered from responses to a survey conducted by Carrie Russell, Copyright Specialist, American Library Association. Because of the Covid-19 pandemic, many libraries are still closed, so librarians have been unable to provide us with comprehensive lists of titles of discs in their collections experiencing disc rot.

“common types of DVD housing place stress on the core, resulting in some risk of damage every time you remove a disc from its case. We do rehouse a percentage of media, but it’s not feasible for us to do it for all of our discs.”

Steffen explained that “before replacing a deteriorating copy, I would determine whether there is a newer edition available that might not be affected by the same manufacturing problem, and I would purchase that copy. But in the cases where they never made a new pressing or edition of a DVD/Blu-ray title, then we would need the ability to decrypt it and recover the data if at all possible.”

Gisele Tanasse at UC Berkeley reports that “we have seen degradation in our DVD discs, most notably the separation of the polycarbonate protective layer from the data layer, which renders the DVDs unplayable. We also suffered a significant flood in 2018, where, though the DVD collection was not touched by water, they were in very humid conditions for an extended period before we were able to move the entire collection.”

Tanasse estimates that as much as 30 percent of Berkeley’s DVD collection is damaged or deteriorating.<sup>3</sup> The damage and deterioration includes:

- Cracking at core from heavy use or mishandling by patrons (this prevents the DVD from playing back in classroom players and especially laptops);
- discoloration of the data layer (suggesting oxidation, usually interfering with playback);
- separation at the data layer (where the polycarbonate protective layer separates from the data layer, interfering with playback);
- significant scratching (preventing playback without polishing or resanding of the polycarbonate protective layer--this layer can only be polished or resanded a few times before the polycarbonate protective layer is entirely sanded away, damaging the data layer and preventing playback);
- circular striations that result from debris caught in a laptop DVD player scratching the polycarbonate protective layer during playback (this is occurring more frequently because of the shift away from classroom players to instructors to use their own laptops; the scratches are often very deep and require significant sanding to correct)
- discs that are at or near sanding limits (where previous polishes or resanding was performed to allow playback); and
- discs where they opaque layer or label is damaged, degraded or chipping away (preventing playback because the disc can no longer reflect the laser for playback).

Tanasse notes that in libraries where more of the discs are in regular use, the percentage of discs that are damaged is higher. As a practical matter, any disc that is used on more than an occasional basis is damaged. When she worked at a public library, “all our DVDs were scratched and they all had the property stamps and security tags which threw off play and deteriorated the opaque layer which allows for playback.”

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<sup>3</sup> See also Peter Svensson, When optical discs go bad, *nbcnews.com*, <https://www.nbcnews.com/id/wbna4908081> (May 4, 2004)(estimating in 2004 that 15 to 20 percent of collected compact discs, produced in the 1980s, experienced disc rot).

Brian Bolling of Temple University also reported on physical damage to discs in the library's collection. For example, a professor returned a disc with a cracked center.

3. It is often difficult to purchase undamaged discs at a reasonable cost. First, as noted above, often a particular title is printed only once, and a manufacturing problem could affect all the discs. This is the case with Warner Bros. DVDs manufactured between 2006 and 2008.

Second, because of the limited print runs of the specialized motion pictures in library collections, many discs are out-of-print and cannot be purchased unused. Some of these out of print titles include: *Freedom: The History of Us*; *This is Edward R. Murrow*; *A Vietnam Deception: The Uncounted Enemy*; *Ascension of the Demonoids*; *Crossroads* (Bruce Conner); *Looking for Mushrooms* (Bruce Conner); *Dvorak and America*; *Richard Wagner's Parsifal* (film version by Hans-Jurgen Syberg); *Stories of Floating Weeds*; *The Flowers of St. Francis*; *Sólo con tu pareja*; *Mamma Roma*; *Quills* (Philip Kaufman 2001); *Goldstein* (Philip Kaufman 2006); *Cabeza de Vaca* (Nicolás Echevarría 2001); *Chants of Orthodox Easter* (Choir Capella St. Petersburg 2001); *Legends of Jazz Guitar, vol. 1-2* (2001); *Gormenghast*, (BBC 2001); *Sugar Cane Alley*; *Moolaade* (Ousmane Sembene, 2004); *Paragraph 175* (Rob Epstein and Jesse Friedman); *Bamako* (Abderrahmane Sissako); *Xala* (Ousmane Sembene, 1975); *Lancelot du Lac* (Robert Bresson, 1974); *Neon Genesis Evangelion* (1995-96); *Quilombo* (Carlos Diegues, 1984); and *Armageddon* (1998).

Emory's James Steffen described a restored version of the Zhang Yimou film *Red Sorghum*, which was released on Blu-ray in 2018. It did not receive any commercial distribution outside of China. It was available only as a limited-edition box set, and Emory has the only library holding according to WorldCat. The box set sold out immediately when it was released, and copies are very difficult to obtain. There was an out-of-print DVD version made in the UK, but it has very poor picture quality, and color is important for this film. Similarly, a limited pressing of a restored version of the Chinese film *The Horse Thief* sold out promptly. Emory has the only copy listed in WorldCat.

4. Even when a motion picture might be available on a streaming service or another format, the supplementary materials on the discs are not available. These supplementary materials, themselves motion pictures within the meaning of section 101, are enormously valuable to researchers and students.

Moshiri Farhad of the University of the Incarnate Word Library observes that "we have many opera performances on DVD. Our faculty love these extras that show the rehearsals, stage crafts, interviews, etc."

Howard Besser, Professor of Cinema Studies and Founding Director of the Moving Image Archiving and Preservation Program at New York University, mentioned that "the DVD 'extras' ... are never migrated to another format, and tend to be heavily used by media studies classes."

Dan Gurlitz of Soundview Media Partners reported that



Many films on DVD include bonus materials which can provide additional materials in the form of shorts, interviews, commentaries and in some cases additional films. These materials are rarely if ever available from the streaming perspective. A perfect example from our library is the film *Memory after Belsen*. The primary feature addresses how we as a society can change the history of the Holocaust to a new generation. Included on the desk is the film *Hitler's courts*. This bonus film addresses the betrayal of law in Nazi Germany. It alone carries value as a separate subject for study especially in our current environment.

Other examples of bonus materials appearing on DVDs include:

- *American Heretics: The Politics of the Gospel*  
Bonus materials include an extended panel discussion with cast and an introduction of the film by Rev. Bishop Carlton Pearson
- *We Are Egypt*  
The 85-minute feature is coupled with 82 minutes of bonus features including Memories of Egypt's 1952 Revolution with Omar Sharif, Inside Mubarak's NDP Headquarters with Ali Eldin Hilal, Noam Chomsky on U.S. foreign policy in Egypt, democracy activists Esraa Abdel Fattah and Basem Fathy after the Revolution, as well as segments featuring Michele Dunne of the Carnegie Endowment and Laith Kubba of the National Endowment for Democracy
- *Golda's Balcony*  
Includes a 27-minute short on the making of the film
- *Behind the Wall*  
Includes a bonus disc with 46 minutes of extra footage

5. Most of the discs in libraries' collections are protected by technological measures. In the 2015 Rulemaking, the Register concluded that

generally speaking, copyrighted motion pictures are not widely available in formats not subject to technological protections. While the record shows that the various formats considered in this rulemaking—DVD, Blu-ray, and digitally transmitted video—may sometimes constitute alternatives to one another, the record also indicates that each of these formats is typically protected by access controls.

2015 Recommendation at 83-84. Furthermore, the Register found that “screen-captured images still remain of lower quality than those available via circumvention of access controls on motion pictures.” *Id.* at 85. Preservation of low quality images risks the loss of many of the nuances of the director's vision. Accordingly, in order to preserve the motion pictures stored on DVDs and Blu-ray discs, circumvention of TPMs is necessary.

6. The statutory factors set forth in section 1201(a)(1)(C) favor granting this petition.

***(i) the availability for use of copyrighted works***

The petition is targeted at motion pictures stored on DVDs and Blu-ray discs that no longer are commercially available. As discussed above, many of the discs in library collections are out-of-print. Moreover, even if the primary motion picture on the disc is available in another format, such as streaming, much of the supplementary material on the disc, which is of great value to students and researchers, is not commercially available. The works on these discs are protected by TPMs.

***(ii) the availability for use of works for nonprofit archival, preservation and educational purposes***

The petition is targeted at preservation of the motion pictures stored on the discs by nonprofit libraries, archives, and museums.

***(iii) the impact that the prohibition on the circumvention of technological measures applied to copyrighted works has on criticism, comment, news reporting, teaching, scholarship or research***

The motion pictures in the collections of libraries, archives, and museums are of great value to criticism, comment, news reporting, teaching, scholarship, and research. Motion pictures are among our primary art forms and means of communication. The rights holders of the motion pictures cannot be relied upon to preserve them for future generations; they often don't have the financial incentive or technological means to do so--and this is not their mission. Preservation is the responsibility of cultural heritage institutions. If motion pictures are not properly preserved by cultural heritage institutions, the loss would be incalculable.

***(iv) the effect of the circumvention of technological measures on the market for or value of copyrighted works***

Because the exemption would apply only to motion pictures that are not commercially available, granting the exemption would not harm the market for the preserved motion pictures.

***The statutory prohibition on circumventing access controls is the cause of the adverse effects.***

As the Register found in 2015, "copyrighted motion pictures are not widely available in formats not subject to technological protections." 2015 Recommendation at 83. The prohibition on circumvention is preventing libraries from circumventing the TPMs on the DVDs and Blue-ray discs in order to preserve the motion pictures stored on the discs. Each day that passes results in further degradation. If an exemption is granted, libraries will engage in these critical film preservation activities. This will facilitate research for future generations of students and scholars.