

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

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Item 1. Commenter Information

This proposal is respectfully submitted by Public Knowledge. Public Knowledge is a nonprofit organization dedicated to representing the public interest in digital policy debates. Public Knowledge promotes freedom of expression, an open internet, and access to affordable communications tools and creative works.

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Item 2. Proposed Class Addressed

This comment addresses Proposed Class 8: Audiovisual works – space-shifting and format-shifting. The class includes audiovisual works purchased by consumers in physical media such as DVD and Blu-ray discs, as well as those purchased by consumers as digital downloads. The class is intended to include audiovisual works whether they portray images in succession in order to create the impression of motion or not; e.g., an audiovisual slideshow embodied in a DVD or a downloaded file should also be considered a part of the class.

Item 3. Overview

Beginning with the introduction of DVDs, the most common forms of commercially distributed audiovisual works have been offered with the addition of technological protection measures. These TPMs have served as a barrier to consumers shifting the movies they have legally purchased onto other devices for personal, noncommercial uses, as they can readily do with unprotected audio and audiovisual works.

The same is true regardless of the protected format in which the works occur. DVDs and other physical media present a distinctly relevant case, as increasing numbers of devices are incompatible with them, and many works are available only in these formats, any incompatibility costs consumers either some measure of value in the media, in their devices, or both. However, incompatibility of other file formats with other devices still

creates losses. The loss of consumer utility caused by these restrictions can be estimated in millions of dollars.

This is despite the fact that space-shifting is an acknowledged fair use. The history of legitimate home recording extends long before the Supreme Court decision in the Betamax case, and stretches beyond mere time-shifting. That history has been continually reinforced up to the current day, with an unequivocal holding in a federal court this January that space-shifting is a paradigmatic fair use.

Granting the exemption will result in minimal harm to rightsholders. Consumer spending on entertainment continues to rise (even as spending on physical media falls), and no increase in infringement can be plausibly attributed to the granting of the exemption, given the current ubiquity of circumvention now, and the fact that illicit copies are being reproduced and distributed widely without the need for circumventing more protected copies. Those infringers are not awaiting the ruling of the Librarian before engaging in circumvention; more legitimate users, however, are.

Item 4. Technological Protection Measure(s) and Method(s) of Circumvention

A wide variety of technologies are used as access protection measures for audiovisual media. Among the most common are Content Scramble System (“CSS”) on Digital Versatile Discs (“DVDs”); High-bandwidth Digital Content Protection (“HDCP”), Advanced Access Content System (“AACS”), and BD+ on Blu-ray discs, and a wider variety of changing controls on digitally-delivered audiovisual works.

The Office asks whether the TPMs sought to be circumvented are access or copy controls. The distinction between the two types of protection measures (or, to use the statutory language, between a “technological measure that effectively controls access to a work protected under this title” and a “technological measure that effectively protects a right of a copyright owner under this title in a work”) is frequently unclear—not simply as a matter of law, but as a matter of fact. In particular, copyrighted works being accessed through digital devices will frequently require some form of “copying” (whether or not that rises to the level of “reproduction” as defined in the Act) in order to merely be used. This aspect of digital technology should not allow access controls to escape this proceeding by simultaneously styling themselves as copy controls.

Furthermore, the Library and the Office should be wary of creating exemptions that are overly specific with regard to particular TPMs and methods of their circumvention. As formatting technologies change rapidly, allowing uses based only upon existing technological measures, and foreclosing those that may be developed between now and 2018 would be unnecessarily limiting.

The Librarian and Register have the ability to grant exemptions for particular classes of works without being overly specific about the particular mechanisms used by the TPMs at issue. To the extent that a particular control serves as both an access and a copy control, this rulemaking should be able to allow circumvention for the purposes of lawful access.

Rightsholders and control manufacturers concerned with the possibility of a copy control being lawfully circumvented in this way should endeavor to create a clear separation between the two.

Similarly, methods of circumvention are only relevant in cases where the method might itself lead to infringing uses not within the intended scope of the proposal. To the extent that the potential for infringing uses is predictable within the class of works—in this case, via the creation of digital copies of audiovisual works that lack TPMs—the rulemaking can treat such eventualities functionally across many different types of circumvention mechanisms.

Item 5. Asserted Noninfringing Use(s)

Personal, Noncommercial Copying, Including Home Recording, Format-Shifting, and Space-Shifting, is Well-Established Fair Use

In 2012, the Office and the Library contended that the precedents of the Diamond Rio media player case¹ and the Sony Betamax case² did not indicate that format-shifting and space-shifting were lawful, fair uses. However, events both preceding and postdating those decisions continue to demonstrate that format-shifting and space-shifting are lawful.

The history of copyright legislation contains a multitude of references to noncommercial, personal uses, and establishes the intent of the drafters that such uses remain noninfringing after its passage.

For instance, the House Report on the 1971 Sound Recording Act—passed in the explicit hope of curbing record piracy—includes the recognition of lawful home recording. In today’s parlance, that would constitute not only time-shifting, but also space-shifting and format-shifting as well:

In approving the creation of a limited copyright in sound recordings it is the intention of the Committee that this limited copyright not grant any broader rights than are accorded to other copyright proprietors under the existing title 17. Specifically, it is not the intention of the Committee to restrain the home recording, *from broadcasts or from tapes or records*, of recorded performances, where the home recording is for private use and with no purpose of reproducing or otherwise capitalizing commercially on it. This practice is common and unrestrained today, and the record producers and performers would be in no different position from that of the owners of copyright in recorded musical compositions over the past 20 years.³

¹ *Recording Indus. Ass’n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072 (9th Cir. 1999).

² *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).

³ H. Rep. No.287, 92d Cong., 1st Sess. 7 (emphasis added) *cited by Universal City Studios, Inc. v. Sony Corp. of America*, 480 F. Supp. 429, 444 (C.D. Cal. 1979).

Congress not only was explicitly ensuring that home recording could continue with the newly-granted sound recording right; it was also affirming that it remained legal under the rights of musical composition authors, too. Nor was this limited to “time-shifting” radio broadcasts; it was clear that home users were also making personal copies from commercially-produced tapes and records, and that Congress approved of such activities dating back to 1951.

In 1961, the Copyright Office also explicitly endorsed home reproduction of motion pictures in a report discussing need to allow the private performance of films:

New technical devices will probably make it practical in the future to reproduce televised motion pictures in the home. We do not believe the private use of such a reproduction can or should be precluded by copyright.⁴

It is highly unlikely that Register Kaminstein was so naïve as to believe that consumers equipped with video recording devices would restrict themselves to merely time-shifting, when established use of audio home recording equipment also was used for space-shifting and format-shifting (i.e. from broadcast or vinyl to tape) at the time.

Leading up to the 1971 Sound Recording Act, a House Judiciary subcommittee held a hearing at which Barbara Ringer, then Assistant Register, testified. Representative Beister of Pennsylvania, in addressing the question of home audio recording, asked Ringer about the possibility of his own son being a “small pirate,” given that he made off-the-air recordings. Beister wanted to know whether his son would be liable under the new sound recording law. Ringer responded:

I think the answer is clearly, ‘No, it would not.’

I have spoken at a couple of seminars on video cassettes lately, and this question is usually asked: ‘What about the home recorders?’

The answer I have given and will give again is that this is something you cannot control. You simply cannot control it.⁵

Ringer here addressed not only the question of audio recording, but extended it to video recording. Furthermore, just as the House Report clearly contemplated more than time-shifting (it would be nonsensical to “time-shift” a sound recording from one fixed format to another), Rep. Beister’s son was likely not recording songs off the air in order to listen to them later and then delete the recording once he was finished.

⁴ Copyright Law Revision, Report of the Register of Copyrights 30 (July, 1961).

⁵ Hearings on S. 646 before the Subcomm. No.3 of the House Judiciary Comm., 92d Cong., 1st Sess. 22 (June 9-10, 1971).

Ringer’s conviction that home video recording should be noninfringing continued beyond this. Even while noting the threat of infringing distributions of home-copied video recordings, Ringer insisted that home use of recording devices, absent distribution, “is certainly not protectable under the Federal statute.”⁶

Nothing in the record suggests that Congress significantly diverged from Ringer’s expert testimony here, either in the passage of the 1971 Sound Recording Act, the 1976 Act, or since. In the absence of specific exemptions for home recording—an absence that would likely have been known to Congress, and certainly known to Registers Kaminstein and Ringer—the most viable statutory rationale placing home taping outside the realm of copyright infringement has always been fair use. No *sui generis* exception is necessary to encompass the home taping raised, considered, and dealt with by Congress four decades ago; fair use encompasses it. Nor does the Supreme Court’s decision to rule more narrowly in 1984 (on the grounds of time-shifting) imply by omission that unlitigated behaviors are presumptively infringing.

In the intervening years since 1984, no court has found personal, noncommercial space-shifting of the sort proposed here to be an infringement of copyright. To the contrary, courts have issued rulings consistent with the fact that space-shifting is a recognized fair use.

One of the most recent reminders of this comes from *Fox Broadcasting Co. v. Dish Network LLC*.⁷ In that case, Fox sued Dish Network on a variety of causes of action for offering a series of devices and services to its subscribers. Of particular relevance to this proceeding was a feature Dish called “Hopper Transfers.” This feature allowed consumers to transfer copies of recorded television programming from their Hopper digital video recorders onto other personal devices, such as laptop computers, tablets, and smartphones. Fox claimed that both Dish and its users were infringing its copyrights in its television programming.

In analyzing Dish’s potential secondary liability, the court was required to rule upon the liability of its customers for space-shifting. The court held that both time- and space-shifting was fair use:

Hopper Transfers is a technology that permits non-commercial time- and place-shifting of recordings already validly possessed by subscribers, which is paradigmatic fair use under existing law. *See Recording Indus. Ass’n of Am.*, 180 F.3d at 1079 (making copies “in order to render portable, or ‘space-shift,’ those files that already reside on a user’s hard drive . . . is paradigmatic noncommercial use.”).⁸

Relying upon the *Diamond Multimedia* finding that space-shifting is paradigmatic noncommercial use, as well as earlier citations to *Sony*’s fair use analysis, the court came

⁶ *Id.* at 22-23.

⁷ *Fox Broadcasting Co. v. Dish Network LLC*, No. 12-4529 (C.D. Cal. Jan. 12, 2015).

⁸ *Dish* at 53 (citation in original).

easily to the conclusion that space-shifting was in fact fair. In its earlier discussion of how to apply *Sony*, the court noted that, beyond the *Sony* holding that noncommercial, nonprofit time-shifting was fair use, the Supreme Court found that “[a] challenge to a noncommercial use of a copyrighted work requires proof that either the particular use is harmful, or that if it should become widespread, it would adversely affect the potential market for the copyrighted work.”⁹

Although the court recognized that the markets for various types of video programming have changed since the *Sony* decision, with television programmers offering more paid distribution channels than before, these changes were not enough to alter the basic calculus of the fourth fair use factor: the potential market for the original works was not sufficiently harmed to militate against a finding of fair use.¹⁰ This same rationale was applied in the case of space-shifting as well, with similar results.¹¹

The Statutory Fair Use Factors Apply to Space-Shifting

Dish amply corroborates the fact that space-shifting is fair use. The first fair use factor—the purpose and character of the use—is the noncommercial, nonprofit, private reproduction of the works onto a personal computing device. *Dish* holds this purpose as “paradigmatic” fair use. Beyond that label, the rationale is simple—as with the home recording in *Sony*, the noncommercial, nonprofit nature creates a presumption of fairness;¹² the noncommercial, nonprofit, private nature of those reproductions is not altered by the fact that the shift is in the spatial, and not the temporal, dimension.

As for the fourth factor, the harms for the market for copyrighted works remain speculative. Universal and other plaintiffs in *Sony* cited a “loss of control” over the program; “invisible boundaries” being crossed, not unlike more contemporary concerns about a copyright holder’s ability to choose a preferred format. These were not deemed actual harms.¹³ Less philosophical harms, such as decreases in ratings and advertising revenues, and even effects upon film rental and cinema attendance, were “speculative, and, at best, minimal.”¹⁴

The potential markets for works have changed in the intervening years since *Sony*, but not so much as to move home recording out of the realm of fair use. The court in *Dish* noted the presence of video on-demand; online distribution through online streaming

⁹ *Id.* at 40-41 (quoting *Sony Corp. of Am. V. Universal City Studios, Inc.*, 464 U.S. 417, 451 (1984)).

¹⁰ *Dish* at 42-43.

¹¹ *Id.* at 53-54.

¹² *Sony*, 464 U.S. at 449 (“If the Betamax were used to make copies for a commercial or profit-making purpose, such use would presumptively be unfair. The contrary presumption is appropriate here, however, because the District Court’s findings plainly establish that time-shifting for private home use must be characterized as a noncommercial, nonprofit activity.”).

¹³ *Id.* at 452.

¹⁴ *Id.* at 452-54.

services like Hulu, which stream shows with commercials; online streaming on-demand services like Netflix and Amazon Prime; and online download services offered by Amazon, Apple, Microsoft, and Vudu.¹⁵ However, Fox was unable to show that the coexistence of these outlets and the theoretical substitution between them and home recording created harms that “rise[] beyond the speculative.”¹⁶ In large part, this is because the impact of the home recording at issue would be minimal in comparison to the already-occurring and uncontested home recording using “traditional DVR technology.”¹⁷ Even with a direct showing of consumer substitution of home recording for these revenue-generating outlets (a given between even remotely related markets), the court held, “it would be highly speculative and likely impossible to demonstrate that PTAT [Prime Time Any Time—a time-shifting feature] in particular, as opposed to other DISH features and services, is the likely cause of market harm, or is likely to be in the future.”¹⁸

This finding, and its manner of reasoning, is instructive here. Demonstrating a likelihood that some consumers might not purchase online movies or television programs because of their home recording (including space-shifting) abilities is not enough to show a more than speculative effect on the market for those works. Space-shifting is undertaken by consumers who have already paid for their motion pictures; the conjecture that some may refrain from paying several times for the exact same movie because of this capability is not enough of a harm to the market to tip the fourth fair use factor against the consumer.

Furthermore, the *Dish* decision accounts for existing activities in the marketplace, and the comparative effect of Dish’s home recording offerings against that backdrop. Just as the ubiquitous acceptance of “traditional DVR” technology swamps the potential market effect that the Dish activities might have, the granting of this exemption would create a minuscule amount of market effect, due to the current prevalence of space-shifting.

Obtaining accurate numbers on unlawful activity can be difficult; however, the ready availability of guides on how to space-shift motion pictures from protected media—from popular and reputable outlets—indicates a vast consumer acceptance of this practice. When USA Today offers advice to its readers on how to rip both protected and unprotected DVDs,¹⁹ it seems clear that the grant or denial of an exemption would not have any appreciable effect on the overall level of media purchases. Similar guides appear in *Wired*, *MacWorld*, *Gizmodo*, *Lifehacker*, and the *Mac Observer*, for both DVDs and Blu-ray discs.²⁰ More sophisticated users with little regard for the existing

¹⁵ *Dish* at 41-43.

¹⁶ *Id.* at 42.

¹⁷ *Id.*

¹⁸ *Id.* at 43-44.

¹⁹ Rob Pegoraro, *Tip: How to copy a DVD to your PC*, USA Today, Mar. 23, 2012, <http://usatoday30.usatoday.com/tech/products/story/2012-03-25/rip-dvd-computer/53732282/1>.

²⁰ See, e.g., Christopher Breen, *How to rip a Blu-ray Disc*, Macworld, Jun. 12, 2014, <http://www.macworld.com/article/2362781/how-to-rip-a-blu-ray-disc.html>; Dave Hamilton, *Directly Rip and Convert Blu-ray Discs with Handbrake*, The Mac Observer,

circumvention prohibition will continue to space-shift, but granting the exemption would allow the law-abiding the same benefits. Those not circumventing will gain greater access to their works, or lose the burdens imposed upon them by the clumsy workarounds now possible (These are discussed in Item 6 below.).

In its 2012 ruling, the Library cited the Register’s note that this rulemaking “is not the forum in which to break new ground on the scope of fair use.” No new ground need be broken. The absence of a court holding on a particular principle does not negate it; no court has ruled that an original poem that will be written tomorrow is copyrightable creative expression, yet we may proceed safely upon the assumption that will be. In making its determinations, the Library need not constrain the scope of its vision to the Federal Reporters, but can also draw conclusions from the prevalence of activity, the lack of litigation, and the consistency with all applicable precedents.

The use of home video recorders was known and anticipated for nearly a decade before the Betamax litigation commenced; their use, in one technological form or another, has continued—to time-shift, space-shift, and format-shift—for over fifty years to this day. The recent decision in *Dish* only cements the evidence provided by decades of non-litigation of private space-shifting as fair.

Licenses and Contracts Purporting to Restrict Use of Purchased Media Do Not Affect the Fair Use Analysis

Frequently, licenses, contracts, or other agreements so styled will purport to restrict uses of a copyrighted work. In the case of a valid license, breaching the conditions to the license can result in a finding of infringement. However, if the use is a fair one, the existence of a license that purports to restrict that use has no effect.

In its 2012 Rule, the Library noted arguments raised by DVD-CCA that consumers “do not purchase the motion picture itself, but a DVD copy of the motion picture, which

May 15, 2014, <http://www.macobserver.com/tmo/article/directly-rip-and-convert-bluray-disks-with-handbrake>; Wired, *Copy a DVD*, http://howto.wired.com/wiki/Copy_a_DVD; Whitson Gordon, *How to Rip a DVD to Your Computer*, Lifehacker, Feb. 21, 2014, <http://lifehacker.com/5809765/how-to-rip-a-dvd-to-your-computer>; Jon Seff, *How to rip a DVD with Handbrake*, Macworld, Jul. 3, 2013, http://www.macworld.com/article/1157590/how_to_rip_dvd_handbrake.html; Korbin Brown, *How to Backup Your DVD and Blu-ray Movie Collection*, How-to Geek, May 13, 2013, <http://www.howtogeek.com/161498/how-to-backup-your-dvd-and-blu-ray-movie-collection/>; Alan Henry, *Five Best DVD Ripping Tools*, Lifehacker, Dec. 30, 2012, <http://lifehacker.com/380702/five-best-dvd-ripping-tools>; John Mahoney, *How To: Rip Blu-Ray Discs*, Gizmodo, Feb. 28, 2009, <http://gizmodo.com/5161848/how-to-rip-blu-ray-discs>.

affords only the right to access the work according to the DVD format specifications.”²¹ This distinction is immaterial. If the home reproduction of the work is fair use, that reproduction is not within the realm of any rightsholder to prohibit—the exclusive rights of the copyright holder exist subject to the limitations and exceptions in sections 107-122.²² Neither DVD-CCA nor any copyright holder may license rights it does not own. Therefore, the presence or absence of any license agreement does not affect the noninfringing nature of the consumer’s personal, non-commercial space shifting.

DVD-CCA’s and the Register’s argument that consumer have no “unqualified right to access a work on a particular device” is also incorrect. To the extent that accessing a work via a device does not implicate any of the exclusive rights granted to the copyright holder, the consumer has every right to access that work. This argument is of an identity with the basic question of whether or not a personal, noncommercial home copy is a fair use, and thus adds no additional insight to the inquiry.

Nor should any contractual term bar the granting of an exemption. If the use is noninfringing, the presence of a purported contract between the consumer and a rightsholder does not affect the noninfringing nature of the home reproduction.

The Only Relevant Question Regarding the Lawfulness of the Proposed Use is Whether or Not it Infringes Copyright

In fact, the Library and the Office should disregard the extent to which any proposed uses may infringe contracts, laws, or regulations that are not the exclusive rights granted to authors in section 106.

The lawfulness requirement of proposed exemptions is merely that they be “noninfringing,” not that they comply with all potential legal restrictions.²³ Such a limitation is necessary to ensure that the rulemaking process, created by Congress, has any meaningful effect. This is true for at least four reasons.

First, allowing unrelated matters of law to bar circumvention for noninfringing uses runs the risk of categorically denying exemptions in any field that is subject to a sufficiently complex set of contracts or regulations.

A finding that a proposed use *may* be barred by regulations unrelated to copyright should not act as a bar to granting an exemption under section 1201(a)(2). To the extent that the proposed use would violate the unrelated rules, nothing in section 1201 supersedes or obviates those rules. Exemption proponents would be free to petition the relevant agencies, offices, or legislative bodies—or advocate for legal changes in court—in order to make use of the exemption granted through this proceeding. Otherwise, allowing

²¹ Final Rule, Exemption to Prohibition on Circumvention of Copyright Protection, 77 Fed. Reg. 65260, 65276-77, Oct. 16, 2012.

²² 17 U.S.C. § 106.

²³ 17 U.S.C. § 1201(a)(1)(C).

unrelated rules to block assessment of the merits of the copyright and circumvention claims could easily lead to a circular stagnation, as each rulemaking authority awaits word from others to proceed. Progress for any sufficiently complex regulated system would be impossible, regardless of the individual merits of an exemption under each separate regime.

Furthermore, the Library and Office should not assess the lawfulness of a proposed use based upon the presence or absence of contractual limitations on that use. It is trivial for any party to create contracts that purport to prohibit circumvention, or uses that might flow from it that do not in themselves infringe copyright. Should the Library and Office assume that any breach of an agreement would bar the granting of an exemption, the entire section and rulemaking process runs the risk of being rendered a nullity by the inclusion of appropriate terms of service by rightsholders or other affected parties. Unless the Library and Office are willing to either presume that contractual obligations will eventually render this rulemaking moot, or to assess the contractual limitations on each instance of a use of given class of works, as well as the contractual limitations anticipated within the next three years, its determinations should not be affected by such extraneous factors.

Second, to the extent that determining the lawfulness of a proposed use requires assessment of the law beyond questions of copyright infringement or other aspects of Title 17, the Copyright Office and the Library of Congress are poorly placed to answer such questions on its own. The details of antitrust enforcement, false advertising, wireless signal interference, or computer intrusion have neither been delegated to these entities, nor are the Library and the Office expert agencies in these matters.

Third, neither copyrights nor the anticircumvention provisions of the DMCA are to be used as proxy enforcement mechanisms of other interests. The doctrine of copyright misuse “forbids the use of the copyright to secure an exclusive right or limited monopoly not granted by the Copyright Office and which it is contrary to the public policy to grant.”²⁴

In other words, parties should not be able to extend the exclusive powers granted to them over their works beyond their realm in order to achieve goals unrelated to the public purposes of copyright. While a rightsholder is perfectly free to pursue whatever lawful aims it may have beyond the reach of Title 17, copyright misuse prevents it from attaching the presumptions and remedies associated with copyright law into those areas.

One particularly timely example of copyright misuse has come to the fore in *Omega S.A. v. Costco Wholesale Corp.*²⁵ In that case, the watch manufacturer Omega attempted to restrict imports of its watches. Unable to use other means to prevent Costco from doing

²⁴ *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 977-779 (4th Cir. 1990); *Practice Management Information Corp. v. Am. Medical Ass’n*, 121 F.3d 516, 520 (9th Cir. 1997).

²⁵ 2011 U.S. Dist. LEXIS 155893 (E.D. Cal. Nov. 9, 2011), *aff’d* 2015 U.S. App. LEXIS 830 (9th Cir. Jan. 20, 2015).

so, Omega began placing a copyrighted symbol on the backs of its watches, in an effort to use territorial restrictions in copyright law, and thus copyright law itself, to improve its market share in its own watch importation and retail sales—despite the fact that the copyrighted work upon which its legal theory hinged had no value and was itself of little commercial concern to any of the parties or to the eventual consumers. Even if Costco had breached a contract in the act of its importation, or if it failed to pay some import duty in shipping the watches, those hypothetical violations would have no bearing upon the fact that Omega was engaged in copyright misuse.

By the same token, access protection measures unrelated to preventing infringing uses of the work serve to impermissibly extend exclusive rights beyond those granted by the scope of copyright and the public policy underlying it. One case in point is the geographical encoding present on many DVDs, which do not themselves effectively control copyright-implicating access to works; their presence does not bar the reproduction, distribution, or public performance of motion pictures so much as it allows for the exact sort of geographical restrictions on arbitrage so disfavored in *Omega*.

Within the context of analyzing the merits of exemption requests in this proceeding, the Library and Office should therefore exercise its authority in such a way that confines the reach of section 1201(a)(1) so as to not perpetuate attempts at copyright misuse.

Fourth, the language of section 1201(a)(1) limits the application of the circumvention prohibition to measures that control only those types of access that are protected under title 17. In other words, if a form of access is not protected as an exclusive right of the copyright holder under section 106, a protection measure is not covered by the access control provision.

This interpretation protects all legally cognizable acts of access under the law while preventing potentially absurd overinterpretations of section 1201(a). To the extent that “access” affects the interests of a copyright holder, at least one of the section 106 rights will be implicated. In the digital context, RAM and buffer copies will frequently implicate the reproduction right; other types of access will certainly involve more permanent reproductions, adaptations, distributions, public displays, and public performances.

At the same time, recognizing that “under this title” modifies “access” rather than “work” solves an existing conundrum: how, under the terms of section 1201(a), does a padlock (of however much technological sophistication) on a locker full of books not constitute a “technological measure control[ling] access to a work” protected under Title 17? Certainly it was not the intention of Congress to allow prosecutors to include a DMCA violation against any common burglar.

However, if it is the access that is protected under title 17, then the mere act of unlocking or breaking down a door doesn’t meet the copyright-specific criteria of section 1201(a). Just as the mere acts of reading a paperback or privately listening to a recorded album access those works without implicating any section 106 rights, the access gained by the

defeat of a control mechanism will not trigger section 1201 unless that access is itself covered by title 17.

Each of these various considerations by itself should suffice to indicate why breaches or infringements that are not infringements of copyright should not be determining factors in whether or not an exemption should be granted. Instead, the Library and Office can easily convey the limitations of their exemption grants—just as they do not create blanket immunity from copyright infringement liability or the trafficking provisions of section 1201(a)(2) and 1201(b), they clearly lack the authority to gainsay other areas of law.

Making that distinction clear can allow exemption requests to proceed in a way that reduces uncertainty for all concerned stakeholders.

Item 6. Asserted Adverse Effects

As an initial matter, the language of the statute in assessing adverse effects is clear: the Library and the Office are to determine whether persons are likely to be “adversely affected...in their ability to make noninfringing uses” of copyrighted works.²⁶ In other words, proponents must show how the prohibition prevents, or creates a likelihood of preventing, a lawful use. The “adverse effect” referred to in the statute is the effect of being prohibited by law from engaging in lawful activity, not a calculation of estimated monetary or equitable damages resulting from the prohibition.

To the extent to which space-shifting for noncommercial, personal purposes is in fact a lawful fair use, the effect of the prohibition is a plain legal bar. It is not merely likely to prevent fair use; it does.

Consumers See Economic Harm Absent An Exemption

That being said, the inability of law-abiding consumers to shift the media they have purchased from its original format into formats usable with newer devices eliminates potentially billions of dollars of consumer value.

A consumer buying an audio CD receives several sources of utility in exchange for her dollars. All of the various ways in which she might be able to use and enjoy that disc are what she receives in exchange for the purchase price. This includes not only the ability to listen to the music on any compatible player, but also the utility she receives in the extent of its portability and durability versus other media. She also receives utility from the relative fidelity and quality of the sound as encoded on the file, including the advantages of the digital format. Those advantages include the ability to transfer the file from the CD onto other personal devices easily and legally, without appreciable loss of fidelity.

Whether or not the manufacturer of the CD or the holders of the copyrights in the music embedded within it intend all of these sources of utility to be used by the consumer, they

²⁶ 17 U.S.C. § 1201(a)(1)(B).

are hers nonetheless, and contribute to her decision to make the purchase at that particular price.

Removing or restricting any of these features reduces the value that the consumer receives for her money, and thus represents a real loss. Thus, access protection measures that deprive a consumer of the ability to space-shift media remove that value, whether it was present at the introduction of the format (as with CDs) or not (as with DVDs and Blu-ray).

Although, for an individual consumer, this loss will amount to only a fraction of the purchase price, multiplied by the number of titles purchased, the aggregate numbers measured across the country are substantial. In 2014, consumers spent \$6.9 billion dollars on purchasing DVDs.²⁷ Even if the utility represented by the ability to space-shift were only two percent of the price of the average DVD, the resulting loss would amount to over \$138 million in lost consumer utility each year.

Not only are consumers deprived of value in their media via this restriction; they are deprived of value in their computing devices. Consumers reasonably expect that the documents, photos, and other media—including video files—that they have can be used on their devices as old ones slow, fail, or otherwise reach obsolescence. While DVDs have been the standard format for consumer distribution of films for many decades, the prevalence of hardware to play them is decreasing rapidly—a trend that will only accelerate in the next three years. As of January 15, 2015, only four of the top 20 best-selling laptop computers for sale by Amazon have DVD drives.²⁸ No tablet computers and no smartphones contain DVD drives, either, meaning that in order to access the works they have already purchased as their older equipment becomes obsolete, consumers who cannot shift formats would have to purchase duplicate, expensive computing devices.²⁹ (As indicated below, stand-alone peripherals are frequently incompatible with newer devices, and repurchase in other formats is frequently not an option).

These quantitative assessments of adverse effects, however, are only part of the picture. People buy copies of motion pictures and other audiovisual works because they have an

²⁷ Digital Entertainment Group, *U.S. Consumer Spending by Format 2014*, Jan. 5, 2014

²⁸ This finding was derived from the Amazon.com website on January 28th, and again on February 5th.

²⁹ Tablet and smartphone adoption are rising rapidly and consistently, with an accompanying decline in the sales of more traditional personal computing devices. *See, e.g.,* John Heggestuen, *One In Every 5 People In the World Own a Smartphone, One In Every 17 Own a Tablet*, Business Insider, Dec. 15, 2013, <http://www.businessinsider.com/smartphone-and-tablet-penetration-2013-10>; Reuters, *Power Down: Tables Are Crushing PC Sales*, CNBC, Apr. 10, 2013, <http://www.cnbc.com/id/100632389#>; Kathryn Zickuhr, *Tablet Ownership 2013*, Pew Research Center, Jun 10, 2013, <http://www.pewinternet.org/2013/06/10/tablet-ownership-2013/>.

inherent aesthetic and artistic worth to them. The ability for them to continue to access and enjoy those works into the future depends in significant part upon their ability to shift the works between devices and formats.

Proposed Alternatives to Space-Shifting Are Unavailing

Most video content is not available on streaming or download services. But even when some content is available for streaming or download to some viewers, it may not be available to a particular viewer due to restrictions of one kind or another. If the Copyright Office insists that lawful owners of video content are not entitled to exercise their fair use rights and must re-purchase the same content again, it must explain how they are to access the same content through other means on current devices, in spite of these obstacles.

Titles May Not Be Available Online, or Only Available Through Particular Services

Most video content is not available online. Just as many sound recordings never made the leap from vinyl to CD, or from CD to online services, much recorded video has been released only in physical media. Digitizing and converting video content to a format suitable for online distribution is a time-consuming process and it may be difficult for a private company to invest the time to make a given work available in a new medium, even though the aggregate demand for similar works is quite high. Not only that, making a work available online is an ongoing process—video services are constantly changing and ensuring works are available to them can be different for each service. By contrast, the distribution mechanisms for physical media are well-established.

It is difficult to precisely tabulate what particular content is available on what service. Web services like canistream.it can respond to particular queries but there is no one data source for an overview of what titles are available through what means. Nevertheless it is possible to estimate, particularly when a given service makes available both physical media and digital streaming or downloads. One suggestive hint as to how few titles are available via streaming services versus how many are available on physical media can be found by looking at any longtime Netflix user's DVD queue (if the user still uses the DVD-by-mail service). For example, one Public Knowledge staff member's Netflix DVD queue consists of 245 titles, only 21 (8.57%) of which are available for streaming. As for information that is more publicly-verifiable, a recent check indicated that Amazon.com listed 810,608 DVD titles for sale, and 51,702 Blu-ray titles. Compared to 862,310 titles available in physical media, Amazon lists only 95,362 titles (or 11.1%) that are available through Amazon Instant Video.³⁰ These numbers change very frequently (with sometimes a different total for the number available through some format or another being given only a few minutes after the first check), but based on these observations it

³⁰ These numbers were derived from the Amazon.com website on January 28th, and again on February 5th.

seems fair to estimate that no more than around 15% of titles available via physical media are available via online services.

What's more, the particular titles that are available for a given service change frequently.³¹ Some titles are on many streaming services; some are only on one or another, and what is available changes frequently enough that third parties have taken it on themselves to keep track of when particular titles “expire.”³² Even services where people have *bought* digital videos have shut down, leaving customers with no lawful way to watch those movies if they are encumbered by TPMs.³³ While no one is denying the convenience of online video services, the vagaries of online video availability mean that to truly own a title requires having it in a TPM-free digital format, or a physical copy. Since very often the only way to obtain a copy at all is by purchasing a physical copy, the Copyright Office must ensure that users can space-shift works so they are accessible on modern devices.

Lack of Adequate Broadband

Even if a title is available online, viewers cannot access online content without adequate broadband. But as the FCC has found, 17% of Americans (53% of Americans in rural areas, and 63% of Americans in tribal areas) lack access to wired broadband that is of sufficient quality for “higher-quality video service”—at least 25 Mbps downstream.³⁴ Users such as these may find it impossible to make use of online video options even if they are available. Additionally, it bears mentioning that, even disregarding the data caps and other usage policies that make using mobile Internet access for online video an untenable proposition,³⁵ the areas that are most likely to be underserved by wired broadband are also most likely to be underserved by wireless Internet access.

People without access to online video due to inadequate broadband availability are more likely to continue to rely on physical media. In many cases, the only way for them to enjoy the media they have lawfully purchased on the devices they own is through

³¹ See, e.g., *Doctor Who and other BBC shows are vanishing from Prime in Amazon's fight for exclusivity*, The Verge, Jan. 31, 2015, <http://www.theverge.com/2015/1/31/7954859/doctor-who-bbc-shows-vanishing-from-prime-instant-video>.

³² See “What’s on Netflix Now?”, <http://whatsonnetflixnow.blogspot.com>.

³³ E.g., *VOD Service Acetrax Shutting Down, Forcing Customers Through DRM Hoops To Retain Their Purchased Movies*, Techdirt, May 23, 2013, <https://www.techdirt.com/articles/20130522/10290323174/vod-service-acetrax-shuts-down-germany-customers-movies-are-lost-due-to-drm.shtml>.

³⁴ 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action To Accelerate Deployment, GN Docket No. 14-126 (Feb. 4, 2015), *available at* http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db0204/FCC-15-10A1.pdf.

³⁵ *Comcast Says Mobile Data Is Competitive, But It Costs \$2k To Stream Breaking Bad Over LTE*, Consumerist, August 18, 2014, <http://consumerist.com/2014/08/18/comcast-says-mobile-data-is-competitive-but-it-costs-2k-to-stream-breaking-bad-over-lte>.

exercising their fair use rights. If the Copyright Office denies them the ability to exercise their fair use rights, it will add another disadvantage to populations that are already being left behind by technological advancement.

Data Caps Push Users to First-Party and Affiliated Services

Increasingly, even those that have access to broadband find themselves being pushed to use services operated by or affiliated with their Internet service provider, instead of being able to avail themselves of services available in the competitive market. This is because ISPs use a variety of tactics to advantage particular services over others. For example, T-Mobile exempts some music services, but not others, from data caps. This means that users can find it financially necessary to use the services that T-Mobile has favored, even if they may have a smaller catalog or other limitations.³⁶ Fortunately, in the case of music, users have the option to lawfully rip their CDs and store music locally on their phones, without TPMs interfering with their consumer rights. This is not the case with video, where most physical media is encumbered by TPMs. But many of the same issues with data cap exemptions are happening in the video space, as well. For example, in 2011 Metro PCS began exempting just one video service from its usage meters.³⁷ In 2012, Public Knowledge filed a complaint against Comcast for exempting its own online video service from usage caps, but not the services of competition video services.³⁸ Last year, AT&T launched a “sponsored data” program that allows paying services to exempt themselves from usage caps, giving those well-funded services an obvious advantage over services that cannot afford to pay this toll.³⁹ This increasingly-widespread practice causes great consumer harm, not the least of which is restricting the ability to viewers to access the services of their choice. And even for those ISPs that have usage caps but do not exempt particular video services, cable TV and other non-Internet pay TV services are naturally not subject to usage caps to begin with.

Data caps are not the only issue. In the past year, interconnection congestion has reduced users’ ability to use some online video services. At some point all video traffic that a user accesses online must cross into a last-mile ISP’s network, and the last mile ISP necessarily controls all the entry points into its own network. By strategically degrading

³⁶ *T-Mobile Uses Data Caps to Manipulate Competition Online, Undermine Net Neutrality*, Public Knowledge, June 19, 2014, <https://www.publicknowledge.org/news-blog/blogs/t-mobile-uses-data-caps-to-manipulate-competition-online-undermine-net-neut>.

³⁷ *More on MetroPCS: Discrimination Just Isn’t Reasonable*, Free Press, January 11, 2011, <http://www.freepress.net/press-release/2011/1/11/public-interest-groups-call-fcc-investigate-metropcs-internet-blocking>.

³⁸ *The FCC Must Prevent Comcast from Discriminating Against Online Video Competitors*, August 1, 2012, <https://www.publicknowledge.org/news-blog/blogs/fcc-must-prevent-comcast-discriminating-again>.

³⁹ *AT&T’s New Sponsored Data Scheme is a Tremendous Loss for All of Us*, January 8, 2014, <https://www.publicknowledge.org/news-blog/blogs/attas-new-asponsored-dataa-scheme-tremendous>.

those interconnection points (e.g., by allowing them to become congested without putting in relatively low-cost upgrades), and ISP is able to hold an online video service for ransom until it pays a toll.⁴⁰ Some online video services may be unable or unwilling to pay that toll, which makes those services less usable for viewers, and the existence of these tolls raises the barriers to entry to competing in the online video marketplace which reduces consumer choice. As with data caps, these ISP practices cause great consumer harm,⁴¹ including reducing their access to online video content.

Therefore, even assuming that a person has adequate broadband access, and that a particular video title is available via some online video service or another, the Copyright Office cannot assume that a particular user has *practical* access to that title in the presence of data caps, interconnection gamesmanship, and other issues. The Copyright Office should therefore assure that users have the ability to exercise their fair use rights to rip TPM-encumbered physical media.

Hardware and Software Platforms Push People to First-Party Services

Even assuming that no broadband-related issues prevent a person from accessing online video titles, software platforms may restrict user choice in video services by highlighting first-party or affiliated services and make it difficult or unclear for users to find competing options.

For example, searching for a movie on Google results in a “Knowledge Graph” answer box as well as search results. This answer box is prominently positioned on the Google search results page, and for a movie generally has “Watch Now” options—usually from Google itself, and sometimes from large companies who have paid to have their own links included. On Apple’s iOS, searching for a movie via Spotlight (the search field available by pulling down on the home screen) results *only* in iTunes results—third parties do not even have the ability to pay to have their results included. Amazon’s Fire devices likewise give prominent placement to Amazon’s own video services at the expense of those of competitors.

Relatedly, it is of no moment to claim that people could simply watch DVDs on their mobile devices without ripping them. Smartphones and tablets have no optical drives, and most of the top-selling laptops do not either. It is largely impossible to use an external DVD drive with mobile devices, and when not impossible, wildly inconvenient (as with a laptop, where using an external drive often requires a separate power supply). Even apart from those issues, it is still preferable to rip a DVD even to watch, for example, on a

⁴⁰ These posts from affected companies explain the issue quite well: The Case Against ISP Tolls, Netflix, April 24, 2014, <http://blog.netflix.com/2014/04/the-case-against-isp-tolls.html>; Verizon’s Accidental Mea Culpa, Level 3, July 17, 2014, <http://blog.level3.com/open-internet/verizons-accidental-mea-culpa>.

⁴¹ Open Technology Institute, *Beyond Frustrated: The Sweeping Consumer Harms as a Result of ISP Disputes* (2014), *available at* <http://newamerica.org/oti/beyond-frustrated-the-sweeping-consumer-harms-as-a-result-of-isp-disputes>.

DVD-enabled laptop on an airplane, because DVDs are delicate, DVD drives are noisy, and spinning discs cause significantly more battery drain than merely playing a digital file.⁴²⁴³

These are only representative examples of how users—particularly less-knowledgeable users—may only be presented with a limited menu of online video options even if others are theoretically available. Public Knowledge does not suggest that it is necessarily anticompetitive for a software platform (as opposed to a telecommunications provider like an ISP) to favor its own content. However, in considering what online video options are realistically available to consumers the Copyright Office should consider that typical users may not even be aware of the full range of existing online video services due to these platform design choices. But if users are able to exercise their established fair use rights without interference from unnecessary legal obstacles surrounding DRM, it should not be necessary for them to access these services to begin with in the case of media they have already lawfully purchased.

Apps not Available for Some Platforms

Even if broadband availability, ISP practices, or software platform design choices do not interfere with a users' ability to access online video services, it is increasingly the case that video services are not available through web apps at all—the online video service must create a native software application for a given platform. In this case, it may be that either the platform owner or the online video service itself prevents its service from being available to users on a particular platform.

On platforms such as Apple's iOS, the only way to install third-party software for most users is through the App Store, which Apple itself operates. Because all in-app transactions for digital goods must use Apple's in-app payment system, many third-party content providers do not make digital media available for purchase through their iOS apps at all. For example, a user cannot buy a book through the iOS Kindle app, but can buy a book through Apple's own iBooks app.⁴⁴ Similarly, a user can buy or rent iTunes

⁴² *Laptop Battery Power Tips*, PCWorld, March 25, 2009, http://www.pcworld.com/article/161667/mobile_computing.html (“Playing a video on a laptop's DVD drive eats battery power. Video playback from a hard drive, however, is less taxing. So for your next long flight...convert your own DVDs into files you can play off your hard drive.”).

⁴³ The Office also asks about the utility of screen capture software as an alternative. Screen capture software requires the runtime of the entire motion picture in order to convert the format, does so in a way that occupies the use of the playing machine for that duration, and does so with relatively low fidelity and the constant possibility of interruption. It is as viable a means of lawful reproduction as hand-copying a textbook.

⁴⁴ *Amazon Caves to Apple, Drops Kindle's In-App Button*, ComputerWorld, July 25, 2011, <http://www.computerworld.com/article/2509396/mobile-apps/amazon-caves-to-apple--drops-kindle-s-in-app-button.html>.

movies and TV shows directly through the iTunes store on an iPad, but cannot buy or rent Google Play movies or TV shows through the iOS Google Play Movies & TV app.

But restrictions like this only apply to apps already on a given platform. Far more common is the case where a video service only supports particular platforms to begin with. For example, for a long time Amazon's Instant Video service was unavailable on Android, the mobile platform with by far the most users, even though it was available on iOS and Amazon's Fire. Apple's iTunes' is the largest digital media store, yet its content is likewise unavailable to most mobile users, or on set-top platforms like the Fire TV, Roku, or Android TV. At the same time, Google Play Movies and TV and Amazon Instant Video is not available on the Apple TV.

Another set of restrictions around app availability raise a different set of competitive issues, though the end result for users is the same. Cable and other pay TV services not only control their own set-top box platforms (which are generally not open to competitive services) but they control user's ability to use apps even on platforms they do not control. Through a model marketed as "TV Everywhere" but known more broadly as the "authentication" approach, some online video services are only available to users who pay for traditional pay TV service.⁴⁵ These video services verify that a user has a pay TV service such as cable TV by "authenticating" each user with, for example, her cable company. However, the cable company in this case has the option to allow or not allow its subscriber to access the online video service on a per-app, per-platform basis. Thus, a user who subscribes to Comcast cable may be able to access Service A on an Apple TV but not a Roku. For a Time Warner Cable subscriber it may be the opposite.

In a given case, a title may be available through streaming, for a user who has adequate broadband, and is not subject to discriminatory data caps or other connectivity issues that affect the availability or performance of online video. It may be that neither the online video service itself nor the software platform prevent her from accessing the title—the online video service has developed a native app for the users' platform, and the platform does not impose any restrictions on the app nor make it difficult to access. Nevertheless, it may still be that the user is denied access to the title because of the whims of her cable company with regard to the authentication process.

Any number of issues may interfere with a user's ability to access online video content. The Copyright Office must therefore ensure that users are able to exercise their fair use rights with respect to DRM-encumbered media, since physical copies and fair use together bypass this thicket of problems.

⁴⁵ Roku provides an overview of this issue in an FCC filing. See Comments of Roku in Comcast/Time Warner Cable, MB Docket No. 14-57, August 25, 2014 (a cable company "may also discriminate by authenticating an app on its own Internet streaming platform or on favored platforms, but not on others"), *available at* <http://apps.fcc.gov/ecfs/document/view?id=7521820161>.

Item 7. Statutory Factors

(i) availability for use of copyrighted works

As noted above, large quantities of works are available only in DVD format. For consumers who lack DVD players, or whose devices are incompatible with DVD drives, these works are inaccessible. Without the exemption, their ability to use new devices to access the works will be limited to those increasingly rare devices.

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

Allowing personal space-shifting creates a more robust environment for the preservation of works. A number of historic broadcasts, for example, have been preserved for posterity solely through the home recording of individuals.⁴⁶ Even popular works that may be reissued can have historically or technically important editions preserved only if they are present in physical media, or in a form that is not centrally controlled. Allowing space-shifting creates a more ready environment for that preservation and later dissemination. The legality of the making of the preserved copy is often critical; note that the instance of the Super Bowl I tape cited above was the subject of negotiation between the owner of the preserved recording and the NFL.

(iii) impact of the prohibition upon criticism, comment, news reporting, teaching, scholarship, or research

While the primary purpose of the use in this exemption is purely personal, the proliferation of privately-held and compatible copies serves as a redundancy measure that helps protect potential later uses for these other fair uses.

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

With regard to the effect on the potential market for the original motion pictures, this topic has been discussed above in Item 5. The value of the copyrighted works for the

⁴⁶ This list included, for example, the only known copy of the first Super Bowl, an unauthorized home recording by a fan; the finale of the 1960 World Series, recorded without permission via kinescope by Bing Crosby; and countless recordings by jazz legends recorded from radio broadcasts. David Roth and Jared Diamond, *Found at Last: A Tape of the First Super Bowl*, *The Wall Street Journal*, Feb. 5, 2011, <http://www.wsj.com/articles/SB10001424052748704709304576124373773290508>; Richard Sandomir, *In Bing Crosby's Wine Cellar, Vintage Baseball*, *N.Y. Times*, Sep. 23, 2010, <http://www.nytimes.com/2010/09/24/sports/baseball/24crosby.html>; Larry Rohter, *Museum Acquires Storied Trove of Performances by Jazz Greats*, *N.Y. Times*, Aug. 16, 2010, <http://www.nytimes.com/2010/08/17/arts/music/17jazz.html>.

consumers who have already purchased copies, or who might purchase those title only available on DVD or other physical, access-protected media will increase, as discussed in Item 6.

For the above reasons, the Librarian should grant the proposed exemption.

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