

**LIBRARY OF CONGRESS**

**Copyright Office**

**37 CFR Part 201**

**[Docket No. 2011-7]**

**Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies**

**AGENCY:** Copyright Office, Library of Congress.

**ACTION:** Final rule.

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**SUMMARY:** Having duly considered and accepted the Recommendation of the Register of Copyrights that the prohibition against circumvention of technological measures that effectively control access to copyrighted works shall not apply to persons who engage in noninfringing uses of certain classes of copyrighted works, the Librarian of Congress is exercising his authority to publish a new rule designating classes of copyrighted works that shall be subject to statutory exemption.

**EFFECTIVE DATE:** October 28, 2012.

**FOR FURTHER INFORMATION CONTACT:** Jacqueline C. Charlesworth, Senior Counsel to the Register of Copyrights, Office of the Register of Copyrights, by email at [jcharlesworth@loc.gov](mailto:jcharlesworth@loc.gov); Christopher S. Reed, Senior Advisor for Policy & Special Projects, Office of the Register of Copyrights, by email at [creed@loc.gov](mailto:creed@loc.gov); or call the U.S. Copyright Office by phone at 202-707-8350.

**SUPPLEMENTARY INFORMATION:** The Librarian of Congress, upon the recommendation of the Register of Copyrights, has determined that the prohibition against circumvention of technological measures that effectively control access to copyrighted works

shall not apply to persons who engage in noninfringing uses of certain classes of works. This rulemaking is the culmination of a proceeding initiated by the Register on September 29, 2011. A more comprehensive statement of the background and legal requirements of the rulemaking, a discussion of the record, and the Register's analysis are set forth in the Register's Recommendation, which was transmitted to the Librarian on October 12, 2012. A copy of the Recommendation may be found at [www.copyright.gov/1201/](http://www.copyright.gov/1201/). This notice summarizes the Register's Recommendation, announces the Librarian's determination, and publishes the regulatory text codifying the exempted classes of works.

## **I. Background**

### **A. Statutory Requirements**

The Digital Millennium Copyright Act ("DMCA") was enacted to implement certain provisions of the WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty. It established a wide range of rules for the digital marketplace that govern not only copyright owners, but also consumers, manufacturers, distributors, libraries, educators, and online service providers.

Chapter 12 of Title 17 of the United States Code prohibits the circumvention of certain technological measures employed by or on behalf of copyright owners to protect their works ("technological measures" or "access controls"). Specifically, Section 1201(a)(1)(A) provides, in part, that "[n]o person shall circumvent a technological measure that effectively controls access to a work protected" by the Copyright Act. In order to ensure that the public will have the continued ability to engage in noninfringing uses of copyrighted works, however, subparagraph (B) limits this prohibition. It provides that the prohibition shall not apply to persons who are users of a copyrighted work in a particular class of works if such persons are, or in the succeeding three-year period are likely to be, adversely affected by virtue of the prohibition in

their ability to make noninfringing uses of such works, as determined in this rulemaking proceeding.

The proceeding is conducted by the Register of Copyrights, who is to provide notice of the proceeding, seek comments from the public, consult with the Assistant Secretary for Communications and Information of the Department of Commerce, and recommend final regulations to the Librarian of Congress. According to Section 1201(a)(1)(D), the resulting regulations, which are issued by the Librarian of Congress, announce “any class of copyrighted works for which the Librarian has determined, pursuant to the rulemaking . . . that noninfringing uses by persons who are users of a copyrighted work are, or are likely to be, adversely affected, and the prohibition contained in subparagraph (A) shall not apply to such users with respect to such class of works for the ensuing 3-year period.”

The primary responsibility of the Register and the Librarian in this rulemaking proceeding is to assess whether the implementation of access control measures is diminishing the ability of individuals to use copyrighted works in ways that are not infringing and to designate any classes of works with respect to which users have been adversely affected in their ability to make such noninfringing uses. Congress intended that the Register solicit input that would enable consideration of a broad range of current or likely future adverse impacts. Section 1201(a)(1)(C) directs that the rulemaking proceeding examine: (1) the availability for use of copyrighted works; (2) the availability for use of works for nonprofit archival, preservation, and educational purposes; (3) 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; (4) the effect of circumvention of technological measures on the market for or value of copyrighted works; and (5) such other factors as the Librarian considers appropriate. These statutory factors require the Register and Librarian to balance carefully the

availability of copyrighted works for use, the effect of the prohibition on particular uses, and the effect of circumvention on copyrighted works.

## **B. The Rulemaking Process**

In examining the factors set forth in Section 1201(a)(1)(C), the focus is on whether the implementation of technological measures has an adverse impact on the ability of users to make lawful uses of copyrighted works. The statutory prohibition on circumvention is presumed to apply to any and all kinds of works unless, and until, the criteria have been met for a particular class.

In each rulemaking proceeding, the Register and Librarian review the proposed classes *de novo*. The fact that a class previously has been designated creates no presumption that redesignation is appropriate. While in some cases earlier *legal* analysis by the Register may be relevant to analyzing a proposed exemption, the proponent of a class must still make a persuasive *factual* showing with respect to the three-year period currently under consideration. When a class has been previously designated, however, evidence relating to the costs, benefits, and marketplace effects ensuing from the earlier designation may be relevant in assessing whether a similar class should be designated for the subsequent period.

Proponents of an exemption for a class of works bear the burden of demonstrating that the exemption is warranted. In order to establish a *prima facie* case for designation of a particular class of works, the proponent must show that: (1) uses affected by the prohibition on circumvention are or are likely to be noninfringing; and (2) as a result of a technological measure controlling access to a copyrighted work, the prohibition is causing, or in the next three years is likely to cause, a substantial adverse impact on those uses.

There are several types of noninfringing uses that could be affected by the prohibition of Section 1201(a)(1), including fair use and the use of public domain works, among others. A

proponent must show that the proposed use is or is likely noninfringing. It is not sufficient that the use could be noninfringing, as the Register does not apply a “rule of doubt” when it is unclear whether a proposed use is likely to be fair or otherwise noninfringing.

A proponent may not rely on speculation to support a proposed class, but instead must show by a preponderance of evidence that the alleged harm to noninfringing uses is more likely than not to occur during the next three years. The harm must be distinct and measurable, and more than *de minimis*. The Register and Librarian will, when appropriate, consider whether alternatives exist to accomplish the proposed noninfringing uses. The mere fact that a particular medium or technology may be more convenient for noninfringing uses than other formats is generally insufficient to support an exemption. If sufficient alternatives exist, there is no substantial adverse impact or adequate basis to designate the class.

### **C. Defining a Class**

The starting point in defining a “particular class” of works to be designated as a result of the rulemaking is one of the categories of works set forth in Section 102 of the Copyright Act, such as literary works, musical works, or sound recordings. Those categories are only a starting point, however; a “class” will generally constitute some subset of a Section 102 category. The determination of the appropriate scope of a class of works recommended for exemption will also depend on the evidentiary record and take into account the adverse impact on noninfringing uses, as well as the market for and value of the copyrighted works.

While beginning with a category of works identified in Section 102, or a subcategory thereof, the description of the “particular class” ordinarily will be refined with reference to other factors so that the scope of the class is proportionate to the scope of harm to noninfringing uses. For example, a class might be refined in part by reference to the medium on which the works are distributed, or to the access control measures applied to the works. The description of a class of

works may also be refined, in appropriate cases, by reference to the type of user who may take advantage of the exemption or the type of use that may be made pursuant to the designation. The class must be properly tailored to address not only the demonstrated harm, but also to limit the adverse consequences that may result from the exemption to the prohibition on circumvention. In every case, the contours of a class will depend on the factual record established in the rulemaking proceeding.

## **II. History of the Proceeding**

### **A. Solicitation of Public Comments and Hearings**

This is the fifth triennial rulemaking proceeding pursuant to Section 1201(a)(1)(C). The Register initiated the rulemaking on September 29, 2011 (76 FR 60398) with publication of a Notice of Inquiry (“NOI”). The NOI requested written comments from all interested parties, including representatives of copyright owners, educational institutions, libraries and archives, scholars, researchers, and members of the public, concerning whether noninfringing uses of certain classes of works are, or are likely to be, adversely affected by the prohibition against circumvention of measures that control access to copyrighted works.

During the initial comment period that ended on December 1, 2011, the Copyright Office received 22 comments, all of which were posted on the Office’s website. Based on these comments, the Register identified proposed exemptions for the upcoming period. Because some of the initial comments contained similar or overlapping proposals, the Copyright Office organized the proposals into ten proposed classes of works, and set forth and summarized each class in a Notice of Proposed Rulemaking (“NPRM”) published on December 20, 2011 (76 FR 78866).

The NPRM did not present the initial classes in the form of a proposed rule, but merely as “a starting point for further consideration.” The NPRM asked interested parties to submit additional comments and reply comments providing support, opposition, clarification, or correction regarding the proposed classes of works, and to provide factual and/or legal arguments in support of their positions. The Copyright Office received a total of 674 comments before the comment period closed on February 10, 2012. The Office also received 18 reply comments before the reply comment period closed on March 2, 2012.

On March 15, 2012, the Register published a Notice indicating that public hearings would be conducted at the University of California, UCLA School of Law, in California, and at the Library of Congress in Washington, D.C., in May and June 2012 to consider the proposed exemptions. Requests to testify were due April 2, 2012. Public hearings were held on five separate days: at the Library of Congress on May 11, 2012; at University of California, Los Angeles, School of Law on May 17, 2012; and at the Library of Congress on May 31, June 4, and June 5, 2012. Witnesses representing proponents and opponents of proposed classes of works offered testimony and answered questions from Copyright Office staff.

Following the hearings, the Copyright Office sent follow-up questions pertaining to certain issues to witnesses who had testified. The purpose of these written inquiries was to clarify for the record certain statements made during the hearings and to elicit further responses to questions raised at the hearings.

**B. Consultation with the Assistant Secretary for Communications and Information**

As contemplated by Congress, the Register also sought input from the Assistant Secretary for Communications and Information of the Department of Commerce, who oversees the National Telecommunications and Information Administration (“NTIA”). NTIA staff were

briefed on the rulemaking process and informed of developments through a series of meetings and telephone conferences. They also were in attendance at many of the hearings.

NTIA formally communicated its views on the proposed classes in a letter delivered to the Register on September 21, 2012.

### **III. The Designated Classes**

Upon the recommendation of the Register of Copyrights, the Librarian has determined that the following classes of works shall be exempt from the prohibition against circumvention of technological measures set forth in Section 1201(a)(1)(A):

#### **A. Literary works distributed electronically – assistive technologies**

**Literary works, distributed electronically, that are protected by technological measures which either prevent the enabling of read-aloud functionality or interfere with screen readers or other applications or assistive technologies, (i) when a copy of such a work is lawfully obtained by a blind or other person with a disability, as such a person is defined in 17 U.S.C. 121; provided, however, the rights owner is remunerated, as appropriate, for the price of the mainstream copy of the work as made available to the general public through customary channels; or (ii) when such work is a nondramatic literary work, lawfully obtained and used by an authorized entity pursuant to 17 U.S.C. 121.**

This exemption is a modification of the proponents' proposal. It permits the circumvention of literary works that are distributed electronically to allow blind and other persons with disabilities to obtain books through the open market and use screen readers and other assistive technologies to read them, regardless of whether an accessible copy may be available for purchase, but provided the author, publisher, or other rights owner receives remuneration, as appropriate. It also permits authorized entities operating under Section 121 to use such works and ensures that such use conforms to the provisions and safeguards of that section.



Proponents American Council of the Blind and American Foundation for the Blind, supported by The Samuelson-Glushko Technology Law & Policy Clinic at the University of Colorado Law School, sought an exemption to access literary works that are distributed electronically – *i.e.*, ebooks – that are legally obtained by individuals who are blind or print disabled but cannot be used with screen readers or other assistive technologies. In 2006 and 2010, the Librarian designated a class consisting of “[l]iterary works distributed in ebook format when all existing ebook editions of the work (including digital text editions made available by authorized entities) contain access controls that prevent the enabling either of the book’s read-aloud function or of screen readers that render the text into a specialized format.” *See* 37 C.F.R. 201.40(b)(6). In this proceeding, proponents sought to eliminate the requirement that all existing ebook editions contain access controls, but at the same time proposed to limit the exemption to individuals with print disabilities as defined by Section 121 of the Copyright Act and to authorized entities under Section 121 distributing works exclusively to such persons.

Proponents asserted that the exception is necessary because technological measures to control access to copyrighted works have been developed and deployed in ways that prevent access to ebooks by people who are blind or visually impaired. Proponents explained that, despite the rapid growth of the ebook market, most ebook titles remain inaccessible due to fragmentation within the industry and differing technical standards and accessibility capabilities across platforms. Although precise figures remain elusive, press accounts cited by the proponents suggest that only a fraction of the publicly available ebooks are accessible; proponents estimated that there are approximately 1.8 million inaccessible ebook titles. Proponents cited an example, *The Mill River Recluse* by Darcie Chan, ebook editions of which are available in each of the three major ebook stores. Only the iBookstore edition is accessible,

however. An individual with a print disability would thus be required to have an iPhone, iPad, or other Apple device in order to access the book.

Joint Creators and Copyright Owners, consisting of the Association of American Publishers, the American Society of Media Photographers, the Business Software Alliance, the Entertainment Software Association, the Motion Picture Association of America, the Picture Archive Council of America, and the Recording Industry Association of America (“Joint Creators”), representing various content owner groups, offered no objection in principle to an exemption such as that promulgated in 2010. They observed that the market is evolving rapidly and that the market share of the major electronic book platforms had increased substantially since the last rulemaking. However, they opposed elimination of the requirement in the existing exemption that all ebook formats contain access controls before the exemption could be invoked.

When the Register was first called upon to consider an exemption for ebooks in 2003, the marketplace was very different. At that time, ebooks were distributed primarily for use on personal computers (“PCs”), readable with freely available software, and the public’s reception of ebooks was tentative. Today, ebooks are marketed mainly for use on mobile devices, ranging from dedicated ebook readers using proprietary software (*e.g.*, Amazon’s Kindle) to multipurpose devices running free software applications (*e.g.*, an Apple iPad running Amazon’s Kindle app). Nonetheless, there are often substantial costs associated with owning dedicated reading devices, and there are inefficiencies associated with having to own more than one such device. The restrictions recommended by the Register in prior rulemakings are therefore not reflective of the current market conditions.

The Register determined that the statutory factors of Section 1201(a)(1)(C) strongly favor an exempted class to address the adverse effects that were established in the record. The designated class is not merely a matter of convenience, but is instead intended to enable

individuals who are blind or visually impaired to have meaningful access to the same content that individuals without such impairments are able to perceive. As proponents explained, their desire is simply to be able to access lawfully acquired content. In short, the exemption is designed to permit effective access to a rapidly growing array of ebook content by a population that would otherwise go without.

NTIA also indicated its support for the adoption of an exemption, noting that “[r]equiring visually impaired Americans to invest hundreds of dollars in an additional device (or even multiple additional devices), particularly when an already-owned device is technically capable of rendering literary works accessible, is not a reasonable alternative to circumvention . . . .” Explaining that literary works are distributed electronically in a wide range of formats, not all of which are necessarily widely understood to constitute “ebooks,” NTIA noted that it preferred the more general term “literary works, distributed electronically.”

At the hearing, proponents confirmed that it was not their intent to create a situation where publishers are not getting paid for their works, and that the author or publisher should be compensated for the price of the mainstream book available to the general public. Thus, the first prong of the designated class permits circumvention by blind or other persons with disabilities, effectively ensuring that they have access through the open market, while also ensuring that rights owners receive appropriate remuneration.

The second prong of the proposal (the part that would extend the exemption to authorized entities) is a new consideration; it has not been the subject of a prior Section 1201 rulemaking and proponents did not provide extensive analysis. Nonetheless, the Register found that the proposal was supported by relevant evidence and thus recommended that authorized entities should enjoy an exemption to the extent required to carry out their work under Section 121. The Register recommended some modifications to the proposal as written to ensure that it is

consistent with, but not an enlargement of, Section 121. In relevant part, Section 121 permits qualified “authorized entities” to reproduce and distribute nondramatic literary works provided the resulting copies are in “specialized formats exclusively for use by blind or other persons with disabilities.”

In her recommendation, the Register noted that several provisions in Section 121 appear ill-suited to the digital world and could benefit from comprehensive review by Congress. Section 121 was enacted in 1996 following careful consideration of the public interest, including the interests of persons with disabilities and the interest of authors and other copyright owners. The issues relating to digital uses are complex and deserving of consideration beyond what can be accomplished in this proceeding.

**B. Wireless telephone handsets – software interoperability**

**Computer programs that enable wireless telephone handsets to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the telephone handset.**

This exemption is a modification of the proponents’ proposal. It permits the circumvention of computer programs on mobile phones to enable interoperability of non-vendor-approved software applications (often referred to as “jailbreaking”), but does not apply to tablets – as had been requested by proponents – because the record did not support it.

Proponent Electronic Frontier Foundation (“EFF”), joined by New America Foundation’s Open Technology Initiative, New Media Rights, Mozilla Corporation (“Mozilla”), and the Free Software Foundation (“FSF”), as well as several hundred individual supporters, sought an exemption to permit the circumvention of access controls on wireless devices so that the devices can be used with non-vendor-approved software that is lawfully acquired. In 2010, the Register recommended, and the Librarian designated, a class that permitted circumvention of

technological measures on certain telephone handsets known as “smartphones.” In recommending that class, the Register found that many such phones are protected by access controls, that proponents’ intended use – to render certain lawfully acquired applications interoperable with the handset’s software – was fair, and that the access controls adversely affected that use. The Register also found that the statutory factors prescribed by 17 U.S.C. 1201(a)(1)(C) weighed in favor of granting the exemption.

In this proceeding, proponents urged an expanded version of the class designated in 2010, citing dramatic growth in the mobile phone market, along with continued widespread use of technological measures to prevent users from installing unauthorized applications on such phones. They proposed that the exemption be extended to include “tablets,” such as Apple’s iPad, which, in EFF’s words, have “enjoyed similar radical popularity over the past two years.”

EFF asserted that courts have long found copying and modification to enable device interoperability noninfringing under the doctrine of fair use. It further noted that the Register concluded in the 2010 rulemaking that jailbreaking was a fair use, and maintained that nothing in the factual or legal record since the last proceeding suggested that a change in this position was warranted.

EFF also asserted that the last three years have seen dramatic growth in the adoption of smartphones and tablets as consumers increasingly shift from traditional personal computers to mobile devices. EFF argued that the technological restrictions on phones and tablets have an adverse effect on consumer choice and competition. Specifically, it noted that Apple, whose devices “refuse to run any unapproved third-party software,” has strict rules about the type of programs approved for sale through its “App Store,” the only authorized source of iPhone and iPad applications. EFF further asserted that although Android-based devices are generally less restricted than Apple devices, most still employ technological measures to block functionality

and prevent the installation of certain types of software. EFF urged the Register to consider that such technological measures are not intended to protect the copyrighted firmware, but instead to promote anticompetitive business practices.

Joint Creators asserted that the proposed exemption is unnecessary and beyond the scope of the rulemaking because Section 1201(f) of the Copyright Act already defines “the contours of acceptable circumvention related to interoperability.” Specifically, Joint Creators argued that the proponents have not established that Section 1201(f) does not already permit the conduct in which proponents seek to engage and, “if it were established that Congress chose not to include the conduct at issue within [Section] 1201(f),” then proponents have failed to establish that the Librarian has the authority to upset that decision through this proceeding. The Register concluded that it was unclear, at best, whether Section 1201(f) applies in this circumstance, so she proceeded to analyze the merits of the proposed exemption.

Joint Creators did not directly challenge EFF’s fair use analysis but instead took issue with the Register’s previous fair use finding. In reviewing the fair use question, the Register noted that the factual record with respect to fair use was substantially the same as it was in 2010 and that there had been no significant developments in pertinent case law that would cause the Register to reevaluate the analytical framework applied in 2010. The purpose and character of the use is noncommercial and personal so that individual owners of smartphones may use them for the purpose for which they were intended. The nature of the copyrighted work – firmware – remains the same as it was in 2010, and it remains true that one engaged in jailbreaking need only modify the functional aspects of the firmware, which may or may not be subject to copyright protection. Those engaged in jailbreaking use only that which is necessary to engage in the activity, which is often *de minimis*, rendering the third factor potentially unfavorable, but nevertheless of minimal consequence. With respect to market harm, notwithstanding the earlier

exemption, the proliferation of smartphones has increased since the last rulemaking, suggesting that the fourth factor favored a fair use finding even more than it did in 2010.

The Register found that proponents had established that the prohibition is adversely affecting, and is likely to continue to have an adverse impact on, certain uses of mobile devices in which the firmware, a copyrightable work, is protected by technological measures. The evidence in the record indicated that smartphones have been widely adopted and that consumer acceptance of such devices will continue to increase in the future. Nonetheless, the vast majority of mobile phones sold today contain technological measures that restrict users' ability to install unauthorized applications.

The Register determined that the statutory factors weighed in favor of a renewed exemption for smartphones, as nothing in the record suggested that the market for mobile phones had been negatively impacted by the designation of such a class and, in fact, such a class might make smartphones more attractive to consumers. While Joint Creators raised concerns about pirated applications that are able to run on jailbroken devices, the record did not demonstrate any significant relationship between jailbreaking and piracy.

On the other hand, the Register concluded that the record did not support an extension of the exemption to "tablet" devices. The Register found significant merit to the opposition's concerns that this aspect of the proposed class was broad and ill-defined, as a wide range of devices might be considered "tablets," notwithstanding the significant distinctions among them in terms of the way they operate, their intended purposes, and the nature of the applications they can accommodate. For example, an ebook reading device might be considered a "tablet," as might a handheld video game device or a laptop computer.

NTIA supported the designation of a class for both smartphones and tablets. Noting the broad support for such an exemption and the numerous noninfringing uses enabled by

jailbreaking, NTIA asserted that “the mobile application market has thrived, and continues to do so, despite – and possibly in part because of – the current exemption.” NTIA was persuaded that the proposed class should apply to tablets as well as mobile phones, believing that category to have been sufficiently defined by EFF. As noted, however, the Register determined that the record lacked a sufficient basis to develop an appropriate definition for the “tablet” category of devices, a necessary predicate to extending the exemption beyond smartphones. In future rulemakings, as mobile computing technology evolves, such a definition might be more attainable, but on this record, the Register was unable to recommend the proposed expansion to tablets.

**C. Wireless telephone handsets – interoperability with alternative networks**

**Computer programs, in the form of firmware or software, that enable a wireless telephone handset originally acquired from the operator of a wireless telecommunications network or retailer no later than ninety days after the effective date of this exemption to connect to a different wireless telecommunications network, if the operator of the wireless communications network to which the handset is locked has failed to unlock it within a reasonable period of time following a request by the owner of the wireless telephone handset, and when circumvention is initiated by the owner, an individual consumer, who is also the owner of the copy of the computer program in such wireless telephone handset, solely in order to connect to a different wireless telecommunications network, and such access to the network is authorized by the operator of the network.**

This exemption is a modification of the proponents’ proposal. It permits the circumvention of computer programs on mobile phones to enable such mobile phones to connect to alternative networks (often referred to as “unlocking”), but with limited applicability. In order to align the exemption to current market realities, it applies only to mobile phones acquired prior to the effective date of the exemption or within 90 days thereafter.



Proponents Consumers Union, Youghioghny Communications, LLC, MetroPCS Communications, Inc., and the Competitive Carriers Association, supported by other commenting parties, submitted similar proposals seeking an exemption to permit circumvention to enable wireless devices to interoperate with networks other than the network on which the device was originally used. In 2006, and again in 2010, the Register recommended, and the Librarian designated, a class of works that permitted the circumvention of technological protection measures applied to firmware in wireless handsets for the purpose of switching to an alternative wireless network.

Proponents advanced several theories as to why “unlocking” is a noninfringing use, including that it does not implicate any copyright interests or, if it does, the conduct is permitted under Section 117 of the Copyright Act. In particular, proponents asserted that the owners of mobile phones are also the owners of the copies of the computer programs on those phones and that, as owners, they are entitled to exercise their rights under Section 117, which gives the owner of a copy of a computer program the privilege to make or authorize the making of another copy or adaptation of that computer program under certain circumstances, such as to permit the program to be used on a particular machine.

Proponents noted that “huge numbers” of people have already unlocked their phones under the 2006 and 2010 exemptions and claimed that ending the exemption will lead to higher device prices for consumers, increased electronic waste, higher costs associated with switching service providers, and widespread mobile customer “lock-in.” Although proponents acknowledged that unlocked mobile devices are widely available for purchase, they contended that an exemption is still warranted because some devices sold by carriers are permanently locked and because unlocking policies contain restrictions and may not apply to all of a carrier’s devices. Proponents characterized software locks as impediments to a competitive marketplace.

They claimed that absent the exemption, consumers would be forced to continue to do business with the carrier that sold the device to the consumer in the first instance, or to discard the device.

CTIA—The Wireless Association (“CTIA”), a trade association comprised of various commercial wireless service providers, objected to the proposals as drafted. Overall, CTIA maintained that an exemption for unlocking is not necessary because “the largest nationwide carriers . . . have liberal, publicly available unlocking policies,” and because unlocked phones are “freely available from third party providers – many at low prices.” Nonetheless, CTIA indicated that its members did not object to a “narrowly tailored and carefully limited exception” to permit individual customers of wireless carriers to unlock phones for the purpose of switching networks.

CTIA explained that the practice of locking cell phones is an essential part of the wireless industry’s predominant business model, which involves subsidizing the cost of wireless handsets in exchange for a commitment from the customer that the phone will be used on that carrier’s service so that the subsidy can eventually be recouped by the carrier. CTIA alleged that the industry has been plagued by “large scale phone trafficking operations” that buy large quantities of pre-paid phones, unlock them, and resell them in foreign markets where carriers do not subsidize handsets. On the question of noninfringing use, CTIA asserted that the Section 117 privileges do not apply because owners of wireless devices do not necessarily own the software on those devices.

The Register confronted similar arguments about Section 117 in the 2010 proceeding. There, the parties relied primarily upon *Krause v. Titleserv, Inc.*, 402 F.3d 119 (2d Cir. 2005), as the leading authority regarding ownership of computer programs. After reviewing mobile phone agreements introduced in the 2010 proceeding, based on the state of the law at that time, the Register concluded that “[t]he record . . . leads to the conclusion that a substantial portion of mobile phone owners also own the copies of the software on their phones.”

Since the Register rendered her 2010 Recommendation, the case law has evolved. In 2010, the Ninth Circuit issued its decision in *Vernor v. Autodesk, Inc.*, 621 F.3d 1102 (9th Cir. 2010), holding that “a software user is a licensee rather than an owner of a copy where the copyright owner (1) specifies that the user is granted a license; (2) significantly restricts the user’s ability to transfer the software; and (3) imposes notable use restrictions.”

Proponents made only a cursory attempt to respond to *Vernor* and failed to offer relevant agreements to support their view of software ownership. CTIA, by contrast, cited agreements from several major carriers in an effort to demonstrate that the software on the mobile handsets is licensed, rather than sold, to a phone’s owner. Nonetheless, the Register was forced to conclude that the state of the law – and its applicability to mobile phone software – remains indeterminate. Although *Vernor* and *Krause* are useful guideposts in considering the status of software ownership, they are controlling precedent in only two circuits and are inconsistent in their approach; whether and how those standards would be applied in other circuits is unknown. Moreover, while CTIA contended that the agreements it offered unequivocally supported a finding that users do not own the software, in reviewing those agreements, the Register believed the question to be a closer call. The Register therefore determined that some subset of wireless customers – *i.e.*, anyone considered to own the software on their phones under applicable precedent – would be entitled to exercise the Section 117 privilege.

The Register further concluded that the record before her supported a finding that, with respect to new wireless handsets, there are ample alternatives to circumvention. That is, the marketplace has evolved such that there is now a wide array of unlocked phone options available to consumers. While it is true that not *every* wireless device is available unlocked, and wireless carriers’ unlocking policies are not free from all restrictions, the record clearly demonstrates that there is a wide range of alternatives from which consumers may choose in order to obtain an

unlocked wireless phone. Thus, the Register determined that with respect to newly purchased phones, proponents had not satisfied their burden of showing adverse effects related to a technological protection measure.

However, with respect to “legacy” phones – *i.e.*, used (or perhaps unused) phones previously purchased or otherwise acquired by a consumer – the record pointed to a different conclusion. The record demonstrated that there is significant consumer interest in and demand for using legacy phones on carriers other than the one that originally sold the phone to the consumer. It also supported a finding that owners of legacy phones – especially phones that have not been used on any wireless network for some period of time – may have difficulty obtaining unlocking codes from wireless carriers, in part because an older or expired contract might not require the carrier to cooperate.

Despite the increasing availability of unlocked phones in the marketplace and the trend toward wireless carriers’ unlocking phones in certain circumstances, NTIA favored a broader exemption. It asserted that the unlocking policies of most wireless carriers are not reasonable alternatives to circumvention because many such policies apply only to current customers or subscribers, because some carriers will refuse to unlock devices, and because unlocking policies are often contingent upon the carrier’s ability to obtain the necessary code. Further, “NTIA does not support the notion that it is an appropriate alternative for a current device owner to be required to purchase another device to switch carriers.”

The Register concluded after a review of the statutory factors that an exemption to the prohibition on circumvention of mobile phone computer programs to permit users to unlock “legacy” phones is both warranted and unlikely to harm the market for such programs. At the same time, in light of carriers’ current unlocking policies and the ready availability of new unlocked phones in the marketplace, the record did not support an exemption for newly

purchased phones. Looking to precedents in copyright law, the Register recommended that the class designated by the Librarian include a 90-day transitional period to allow unlocking by those who may acquire phones shortly after the new exemption goes into effect.

**D. Motion picture excerpts – commentary, criticism, and educational uses**

• **Motion pictures, as defined in 17 U.S.C. 101, on DVDs that are lawfully made and acquired and that are protected by the Content Scrambling System, where the person engaging in circumvention believes and has reasonable grounds for believing that circumvention is necessary because reasonably available alternatives, such as noncircumventing methods or using screen capture software as provided for in alternative exemptions, are not able to produce the level of high-quality content required to achieve the desired criticism or comment on such motion pictures, and where circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances: (i) in noncommercial videos; (ii) in documentary films; (iii) in nonfiction multimedia ebooks offering film analysis; and (iv) for educational purposes in film studies or other courses requiring close analysis of film and media excerpts, by college and university faculty, college and university students, and kindergarten through twelfth grade educators. For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.**

• **Motion pictures, as defined in 17 U.S.C. 101, that are lawfully made and acquired via online distribution services and that are protected by various technological protection measures, where the person engaging in circumvention believes and has reasonable grounds for believing that circumvention is necessary because reasonably available alternatives, such as noncircumventing methods or using screen capture software as provided for in alternative exemptions, are not able to produce the level of high-quality content required to achieve the desired criticism or comment on such motion pictures, and where circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances: (i) in noncommercial videos; (ii) in documentary films; (iii) in nonfiction multimedia ebooks offering film analysis; and (iv) for educational purposes in film studies or other courses**

requiring close analysis of film and media excerpts, by college and university faculty, college and university students, and kindergarten through twelfth grade educators. For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.

- Motion pictures, as defined in 17 U.S.C. 101, on DVDs that are lawfully made and acquired and that are protected by the Content Scrambling System, where the circumvention, if any, is undertaken using screen capture technology that is reasonably represented and offered to the public as enabling the reproduction of motion picture content after such content has been lawfully decrypted, when such representations have been reasonably relied upon by the user of such technology, when the person engaging in the circumvention believes and has reasonable grounds for believing that the circumvention is necessary to achieve the desired criticism or comment, and where the circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances: (i) in noncommercial videos; (ii) in documentary films; (iii) in nonfiction multimedia ebooks offering film analysis; and (iv) for educational purposes by college and university faculty, college and university students, and kindergarten through twelfth grade educators. For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.

- Motion pictures, as defined in 17 U.S.C. 101, that are lawfully made and acquired via online distribution services and that are protected by various technological protection measures, where the circumvention, if any, is undertaken using screen capture technology that is reasonably represented and offered to the public as enabling the reproduction of motion picture content after such content has been lawfully decrypted, when such representations have been reasonably relied upon by the user of such technology, when the person engaging in the circumvention believes and has reasonable grounds for believing that the circumvention is necessary to achieve the desired criticism or comment, and where the circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances: (i) in noncommercial videos; (ii) in documentary films; (iii) in nonfiction multimedia ebooks offering film analysis; and (iv) for educational purposes by

**college and university faculty, college and university students, and kindergarten through twelfth grade educators. For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.**

These related exemptions are modifications of the proponents’ proposals. They permit the circumvention of motion pictures contained on DVDs and delivered through online services to permit the use of short portions for purposes of criticism and comment in noncommercial videos, documentary films, nonfiction multimedia ebooks offering film analysis, and for certain educational uses by college and university faculty and students and kindergarten through twelfth grade educators. They also permit the use of screen capture technology to the extent an exemption is necessary under the law. However, the exemptions do not apply to the use of motion picture excerpts in fictional films, as the Register was unable to conclude on the record presented that such use is noninfringing.

Proponents submitted eight proposals requesting the designation of classes to allow the circumvention of lawfully made and acquired motion pictures and audiovisual works protected by various access controls where the user seeks to engage in a noninfringing use. The proposals were comprised of three subgroups:

First, proponents of exemptions for noncommercial videos sought to use clips from motion pictures to create new noncommercial videos, such as remix or mash-up videos, for criticism, comment, and other noninfringing uses. Proponents for these uses included EFF and University of Michigan Library (“UML”), supported by the Organization for Transformative Works. UML’s proposal requested an exemption very similar to the Register’s 2010 recommended exemption for motion pictures contained on DVDs protected by Content Scrambling System (“CSS”), which encompassed educational uses and documentary filmmaking, in addition to noncommercial videos. However, UML indicated that the exemption

should apply not only to motion pictures but to audiovisual works generally. EFF sought to broaden the 2010 exemption by expanding it to include audiovisual works and to include circumvention of motion pictures acquired via online distribution services. It also sought to enlarge the exemption to include not just criticism or comment but *any* noninfringing use, and to cover “primarily noncommercial videos,” a category that would include videos generating some amount of revenue.

Second, proponents of exemptions for commercial uses by documentary filmmakers, fictional filmmakers, and multimedia ebook authors sought an exemption to use clips from motion pictures to engage in criticism, comment, or other fair uses. Proponents for these uses included International Documentary Association, Kartemquin Educational Films, Inc., National Alliance for Media Arts and Culture, and Independent Filmmaker Project (collectively “Joint Filmmakers”); UML; and Mark Berger, Bobette Buster, Barnet Kellman, and Gene Rosow (collectively “Joint Ebook Authors”). Each of these proposals requested an exemption to circumvent motion pictures or other audiovisual works for use by creators of noninfringing commercial works, namely, documentary films, fictional films, and multimedia ebooks offering film analysis. As noted, UML’s proposal largely tracked the exemption recommended by the Register in 2010. Joint Filmmakers’ proposal sought to expand the 2010 exemption by adding fictional filmmakers, as well as by extending the exemption to cover any noninfringing use. Joint Filmmakers also sought to include circumvention of Blu-ray discs protected by the Advanced Access Content System (“AACS”) and motion pictures digitally transmitted through protected online services. Joint Ebook Authors’ proposal sought the use of short portions of motion pictures for the purpose of multimedia ebook authorship. Like Joint Filmmakers, Joint Ebook Authors indicated that the proposed exemption should not depend on uses that involve criticism or comment but should instead merely require that the use be noninfringing. Joint



Ebook Authors also proposed that the exemption include digitally transmitted video in addition to CSS-protected DVDs.

Finally, proponents of exemptions for educational uses sought to use clips from motion pictures for criticism, comment, or other educational purposes by college and university professors and faculty, college and university students, and kindergarten through twelfth grade educators. Proponents for these uses included UML; Library Copyright Alliance (“LCA”); Peter Decherney, Katherine Sender, Michael X. Delli Carpini, International Communication Association, Society for Cinema and Media Studies, and American Association of University Professors (“Joint Educators”); and Media Education Lab at the Harrington School of Communication and Media at the University of Rhode Island (“MEL”). The proposals by UML and LCA requested an exemption similar to the 2010 exemption recommended by the Register for circumvention of CSS-protected DVDs, except that UML sought to broaden it to apply to audiovisual works, as well as to students across all disciplines of study. Joint Educators’ proposed exemption sought to enable college and university students, as well as faculty, to use short portions of video, as well as to circumvent AACS-protected Blu-ray discs and digitally transmitted works. Finally, MEL requested an exemption for the circumvention of audiovisual works used for educational purposes by kindergarten through twelfth grade educators.

Because each of the proposals involved the use of clips from motion pictures or audiovisual works, the eight possible exemptions were addressed as a group in the Register’s Recommendation. The proposals for exemptions to allow the circumvention of lawfully obtained motion pictures protected by access controls for various commercial, noncommercial, and “primarily noncommercial” purposes shared a unifying feature in that in each case, proponents were seeking an exemption to allow circumvention for the purpose of reproducing short clips to facilitate alleged noninfringing uses. Creators of noncommercial videos sought to

use portions of motion pictures to create noninfringing works involving criticism or comment that they asserted were transformative. Documentary filmmakers and multimedia ebook authors sought to reproduce portions of motion pictures in new works offering criticism or commentary. Fictional filmmakers wished to incorporate motion pictures into new films to convey certain messages. Film and media studies professors sought to assemble motion picture excerpts to demonstrate concepts, qualities, and techniques. Other educators sought to reproduce clips of motion pictures to illustrate points for classroom discussion.

Joint Creators and DVD Copy Control Association (“DVD CCA”) opposed the proposals pertaining to noncommercial videos and, more generally, the use of motion pictures contained on CSS-protected DVDs. Joint Creators also opposed the use of motion pictures acquired via online distribution services. Joint Creators questioned whether proponents had met the required statutory burden for an exemption. They urged the Register precisely to analyze the alleged noninfringing uses to determine whether they were, in fact, noninfringing. In addition, they argued that the proposed exemption for circumvention of AACS-protected Blu-ray discs should not be approved.

DVD CCA maintained that none of the examples offered in support of the proposed exemptions for documentary filmmakers, fictional filmmakers, or multimedia ebook authors sufficiently established that CSS is preventing the proposed uses. DVD CCA asserted that there are several alternatives to circumvention, including clip licensing, screen capture software, and video recording via smartphone that would enable proponents affordably and effectively to copy short portions of motion pictures without the requested exemption.

As for educational uses, Joint Creators and DVD CCA did not oppose the granting of an exemption covering circumvention of CSS for a variety of college and university uses involving

copying of short portions of motion pictures, but asserted that the exemption should be limited to conduct that is clearly noninfringing and requires high-quality content.

Advanced Access Content System License Administrator (“AACSLA”) generally opposed the requested exemptions as they would apply to AACSLA-protected Blu-ray discs. It asserted that proponents have failed to make the case that they face substantial adverse effects with respect to content available only on Blu-ray discs.

In reviewing the proposed classes, the Register noted that certain of the proposed exemptions referred to “audiovisual works” as opposed to “motion pictures.” The Register observed that Section 101 defines “motion pictures” as “audiovisual works consisting of a series of related images which, when shown in succession, impart an impression of motion, together with accompanying sounds, if any.” Section 101 defines “audiovisual works” somewhat more broadly, as “works that consist of a series of related images which are intrinsically intended to be shown by the use of machines or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied.” Under the Copyright Act, “motion pictures” are thus a subset (albeit a very large one) of “audiovisual works.” The record for the proposed classes was directed to uses of motion pictures such as movies, television shows, commercials, news, DVD extras, etc., and did not focus on uses of audiovisual works that would fall outside of the Copyright Act’s definition of “motion pictures.” Based on the record, the Register found no basis for considering exemptions beyond motion pictures and treated the requested exemptions for “audiovisual works” as requests relating to motion pictures.

The Register determined that proponents of exemptions for noncommercial videos, commercial uses by documentary filmmakers and multimedia ebook authors, and uses in educational contexts had established that a significant number of the proposed uses were for

purposes of criticism and commentary. She noted that such uses fall within the favored purposes referenced in the preamble of Section 107 and, especially in light of the brevity of the excerpts used, are likely to be fair uses. More specifically, the Register determined that the proposed uses tended to be transformative in nature, employing short clips for purposes of criticism, comment, teaching, and/or scholarship, rather than for the works' originally intended purpose. Despite the commercial aspect of uses by documentary filmmakers and multimedia ebook authors, the Register noted that when a short excerpt of a motion picture is used for purposes of criticism and comment, even in a commercial context, it may well be a productive use that serves the essential function of fair use as a free speech safeguard. While the Register did not conclude that a court would find each and every one of proponents' examples to be transformative, she did find that the record amply supported the conclusion that a substantial number of the proffered examples likely would be considered transformative fair uses.

The Register also concluded, however, that the same fair use analysis did not apply to fictional filmmakers, at least on the record presented. She noted that fictional films differ from the other categories of use because their purpose is typically for entertainment, rather than for criticism or comment. As the Register explained in her Recommendation, under appropriate circumstances, a use by a fictional filmmaker might well be a fair use. But fictional film proponents merely described their desired uses and did not present concrete examples – such as existing films that made use of preexisting material in a clearly transformative manner – that permitted the Register to make a finding of fair use in this context. The record did not allow a satisfying determination as to the nature of the fictional filmmakers' proposed uses, the amount of the underlying works fictional filmmakers generally sought to use, or whether or how such uses might affect the market for the original works.

In addition, the Register observed that, to the extent discernible from proponents' descriptions, a number of the examples cited did not appear readily to lend themselves to a conclusion that the described use would likely be considered fair. More specifically, the use of an earlier work to flesh out characters or motivations in a new work, or to develop a storyline, as suggested by some of proponents' descriptive examples, does not inherently serve the purpose of criticism or comment on the existing work. The Register therefore concluded, on the record before her, that fictional filmmakers had failed to establish that the uses in which they sought to engage were likely to be noninfringing.

Having determined otherwise with respect to the other proposed categories of use involving criticism and comment, however, the Register proceeded to consider whether there were adequate alternatives to circumvention to accommodate these noninfringing uses.

Opponents pointed to clip licensing, smartphone video recording, and screen capture software as alternatives to achieve the desired uses. The Register found that clip licensing was not a reasonable alternative, as the scope of content offered through reasonably available licensing sources was far from complete. Moreover, requiring a creator who is making fair use of a work to obtain a license is in tension with the Supreme Court's holding in *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569 (1994), that rightsholders do not have an exclusive right to markets for commentary on or criticism of their copyrighted works.

Nor did smartphone recording appear to be an adequate option, as the evidence indicated that smartphone recordings yielded inferior video and audio quality, and failed to capture the complete image as it was meant to appear on the screen.

In the 2010 proceeding, the Register determined that screen capture technology offered a cost-effective alternative technique to allow reproduction of motion pictures for certain uses. Unlike the last proceeding, where the Register raised screen capture technology as a possible

alternative, in the current proceeding it was opponents who pointed to screen capture as a reasonable solution. However, based on the video evidence and commentary from proponents and opponents concerning screen capture technology, the Register determined that the screen capture images, while improved in quality since the last rulemaking, were still of lower quality than those available by circumvention of access controls on motion pictures; they were somewhat diminished in clarity and depth, and could exhibit pixilation.

Concerning screen capture, documentary filmmakers suggested that the lower-quality images generated by this technology were not suitable for the dissemination of their films. The Register found a similar argument persuasive in the previous rulemaking based on certain distribution standards generally requiring that films adhere to specific quality standards that cannot be met by screen capture. Unlike in the last proceeding, however, the Register was not convinced on the present record that the distribution requirements would give rise to significant adverse effects. In this proceeding, the parties explained the standards in greater detail, including the fact that certain accommodations are made by distributors with respect to pre-existing materials.

Nonetheless, the record did support the conclusion that, in some cases, for other reasons, the inability to circumvent to make use of higher-quality material available on DVDs and in protected online formats is likely to impose significant adverse effects on documentary filmmakers, noncommercial video makers, multimedia ebook authors, and certain educational users. Creators of noncommercial videos provided the most extensive record to support the need for higher-quality source material. Based on the video evidence presented, the Register concluded that diminished quality likely would impair the criticism and comment contained in noncommercial videos. For example, the Register was able to perceive that certain

noncommercial videos would suffer significantly because of blurring and the loss of detail in characters' expression and sense of depth.

Although the record was not as robust in the case of documentary filmmakers and multimedia ebook authors, it was sufficient to support a similar finding that for certain uses – *i.e.*, when trying to convey a point that depends upon the ability to perceive details or subtleties in a motion picture excerpt – documentary filmmakers and ebook authors would likely suffer adverse effects if they were unable to incorporate higher-quality images. Similarly, educational uses that depend upon close analysis of film or media images might be adversely impacted if students are unable to apprehend the subtle detail or emotional impact of the images they are analyzing. But where precise detail is not required for the particular use in question – for example, where a clip is presented simply to illustrate a historical event – the Register concluded that lower-quality screen capture images appeared adequate to fulfill the noninfringing use.

As an additional concern relating to screen capture technology, proponents maintained that even if the Register acknowledged now, as she did in 2010, that certain types of video capture software are noncircumventing, there is still no assurance that all copyright owners share this view. Proponents observed, for example, that litigation had been instituted over the use of similar methods of acquiring content protected by access controls. In light of the unsettled legal landscape, the Register determined that there is a need for limited exemptions to address the possible circumvention of protected motion pictures when using screen capture technology.

The record also indicated that there is some amount of motion picture material available only on Blu-ray discs, such as bonus material or, more rarely, entire films released exclusively on Blu-ray. However, the cited uses of Blu-ray-exclusive content in the record were insignificant in number. Moreover, with respect to documentary filmmakers in particular, for the reasons discussed above, the Register was not persuaded that Blu-ray content is necessary to

meet applicable distribution standards. The Register therefore concluded that the record did not reflect a substantial adverse impact due to the inability to use motion picture materials contained on Blu-ray discs.

Overall, based on the record presented, the Register determined that, when a higher-quality excerpt is essential to a particular use, an exemption to permit circumvention of CSS-protected DVDs and protected online formats is appropriate. For uses where high-quality material is not critical, screen capture technology provides an adequate alternative to circumvention, and an exemption to permit the use of such technology is appropriate.

Looking to the statutory factors, the Register noted in her previous determination that “while CSS-protected DVDs may very well have fostered the digital distribution of motion pictures to the public, there is no credible support for the proposition that the digital distribution of motion pictures continues to depend on the integrity of the general ‘principle’ that the circumvention of CSS is always unlawful.” She found that the record in the current proceeding similarly failed to support a finding that there could be no exemption to the prohibition on circumvention of CSS-protected DVDs. In light of the negative impact the prohibition on circumvention has on favored uses, such as criticism, comment, news reporting, teaching, scholarship, and research, as established in the proceeding, the Register concluded that the statutory factors support appropriately tailored exemptions to facilitate those uses.

NTIA agreed that an appropriate exemption to permit proposed noninfringing uses is necessary because users lack sufficient alternatives to circumvention. It asserted that “generally, the technological alternatives [to circumvention] produce low-quality videos, and associated license agreements often impose significant content limitations on the final work product.” It further noted that clip services are limited in scope and may not meet the needs of all users, and



that licensing negotiations are “expensive and burdensome, especially when the licensee seeks to critique the copyrighted work.”

NTIA proposed that the Register recommend a class that encompasses “[m]otion pictures and other similar audiovisual works on DVDs or delivered via Internet Protocol,” asserting that the class should encompass “audiovisual works,” which is broader than “motion pictures.” NTIA also proposed to replace “for the purpose of criticism or comment” with “for the purpose of fair use,” and to expand the applicable circumstances beyond documentary filmmaking to include educational uses by college and university professors and college students, educational uses by kindergarten through twelfth grade educators, primarily noncommercial videos, and nonfictional or educational multimedia ebooks. Citing an inadequate definition of the proposed class of users, and a lack of demonstrated harm, the NTIA did not support an exemption for fictional filmmakers.

While the NTIA’s views largely tracked those of the Register’s concerning the need to designate appropriate classes, for the reasons discussed above, the Register did not believe that certain of NTIA’s proposed expansions were supported by the record.

In explaining her recommended exemptions, the Register emphasized that the use of only short portions or clips was critical to her determination that the proposed uses were noninfringing. She rejected the proposed expansion of the exemption to cover unspecified “noninfringing” or “fair” uses where circumvention is not undertaken for the purpose of criticism or comment as, based on the record, criticism or comment were central to the uses supporting the exemption.

The Register also noted that while there might be additional noninfringing uses by multimedia ebook authors that could support a more broadly conceived exemption, the record in the proceeding supported only an exemption for ebooks offering film analysis.

Further, to the extent proponents for noncommercial videos sought an expanded exemption to cover “primarily noncommercial videos” – as opposed to “noncommercial videos” – they failed to demonstrate that a meaningful number of such uses would qualify as noninfringing; proponents identified only a single video that allegedly fell within this category, because it generated advertising revenue. It was not clear from the record, however, as to why such an example should be considered “primarily noncommercial” as opposed to “primarily commercial.” On the other hand, proponents established a sufficient basis to clarify that the exemption for noncommercial works should include videos created pursuant to a paid commission, provided that the commissioning entity uses the work solely in a noncommercial manner.

With respect to educational uses, the Register found that the record supported a determination that college and university professors and other faculty, as well as students, in film studies and other courses focused on close analysis of media excerpts may sometimes need to reproduce content from CSS-protected DVDs and protected online formats to enable such analysis. Because the recommended exemption is limited to educational activities involving close analysis, there was no basis to limit the exemption only to professors. The Register further determined that non-professor faculty at colleges and universities also should be permitted to take advantage of the exemption when there is a pedagogical need for high-quality source material. In addition, the record supported a finding that instructors of pre-college-level students sometimes engage in close analysis of motion picture excerpts in media-oriented courses and might have a need for high-quality source material.

The Register stressed that prospective users of the recommended exemptions for the use of motion picture excerpts should take care to ensure that they satisfy each requirement of the narrowly tailored exemptions before seeking to operate under their benefits, and consider

whether there is an adequate alternative before engaging in circumvention under a recommended exemption. The Register noted that screen capture technology should only be employed when it is reasonably represented, and offered to the public, as enabling the reproduction of motion picture content after such content has been lawfully decrypted – that is, when it is offered as a noncircumventing technology. And, finally, users of the limited exemptions should be prepared to defend their activities in light of the alternatives as they exist at the time of their use of the exemption, including any further innovations in screen capture or other technologies that may produce higher-quality results than were obtainable as of the Register’s Recommendation.

**E. Motion pictures and other audiovisual works – captioning and descriptive audio**

**Motion pictures and other audiovisual works on DVDs that are protected by the Content Scrambling System, or that are distributed by an online service and protected by technological measures that control access to such works, when circumvention is accomplished solely to access the playhead and/or related time code information embedded in copies of such works and solely for the purpose of conducting research and development for the purpose of creating players capable of rendering visual representations of the audible portions of such works and/or audible representations or descriptions of the visual portions of such works to enable an individual who is blind, visually impaired, deaf, or hard of hearing, and who has lawfully obtained a copy of such a work, to perceive the work; provided however, that the resulting player does not require circumvention of technological measures to operate.**

This exemption is a modification of the proponents’ proposal. It permits the circumvention of motion pictures and other audiovisual works contained on DVDs or delivered through online services to facilitate research and development of players capable of rendering captions and descriptive audio for persons who are blind, visually impaired, deaf, or hard of hearing. The exemption responds to the primary need articulated by proponents in their submissions and at the hearings and one compelled by public policy, namely research and

development. With respect to other uses proposed by proponents, the Register was unable to conduct a fair use analysis due to insufficient facts on the record, and, in particular, a lack of clear information regarding how captions and descriptive audio would be created, disseminated, or otherwise made available in connection with the underlying audiovisual work.

Proponents Telecommunications for the Deaf and Hard of Hearing, Inc., Gallaudet University, and the Participatory Culture Foundation proposed that the Register recommend four related classes of works to allow circumvention of technological measures applied to content distributed via the internet and “fixed-disc media” for the purpose of creating, improving, and rendering captions and descriptive audio tracks to enable individuals with disabilities to perceive such works, and for the purpose of conducting research and development on technologies to enable such accessibility. They urged that the prohibition on circumvention has had a “decidedly negative” impact on teaching, scholarship, research, and criticism. They stated that not only does the prohibition stifle the research and development associated with the development of accessible technologies, it also restricts the amount of content that is perceptible by individuals with disabilities.

Although not particularly clear from the proponents’ written filings, at the hearing it became apparent that the primary interest was in the development of players capable of merging commercially accessible content with captions and descriptive audio that are created separately, generally by parties other than the copyright owner of the original copyrightable work.

Proponents alleged that circumvention was necessary to achieve their objectives because they required access to the “playhead,” that is, the technical timing information embedded in internet-delivered and fixed-disc-based content that would allow proper synchronization of captions and descriptive audio with the underlying video content to which it applied.

Proponents explained that although some of the content in question is already captioned

or provides descriptive audio, most does not. They acknowledged that the recently passed Twenty-First Century Communications and Video Accessibility Act (“CVAA”), Pub. L. 111-260 (codified in scattered sections of 47 U.S.C.), likely will require a substantial amount of digitally distributed programming to be captioned. However, they asserted that the CVAA does not extend to a wide range of content, including that which is distributed exclusively online (*e.g.*, content that does not appear first on broadcast or cable television). Indeed, in recent rulemaking proceedings under the CVAA, many content producers and distributors asserted that the creation or improvement of captions and descriptive audio is burdensome and would require permission from the copyright owners.

Proponents noted that the motion picture industry separately had asserted that voluntary captioning of a limited amount of programming would require “eight years to phase in.” They further noted that Netflix provides captions or subtitles on fewer than 5,000 of its nearly 12,000 titles. In addition, proponents explained that when such captions do exist, they may be “riddled with errors” or inconsistently formatted, hampering accessibility. With respect to descriptive audio, proponents observed that such tracks may play back at an inappropriate volume.

As for opposition, AACCS LA and DVD CCA filed separate but substantially similar comments, taking issue with the proposed exemptions. They argued that the marketplace has evolved and will continue to evolve in such a way that satisfies accessibility needs. AACCS LA further asserted that the proposed exemption potentially could harm future growth of the marketplace solutions for accessibility concerns. At the hearings, AACCS LA offered a free license to its technology to enable developers to develop compatible implementations to enable accessibility, and it was suggested that DVD CCA would do so as well.

Joint Creators also opposed, similarly asserting that voluntary efforts and regulatory compliance are sufficient marketplace drivers for accessible materials. In addition, they

maintained that proponents had failed to meet their burden. In their view, proponents had presented only scattered examples of errors in captions and that such errors are little more than a “mere inconvenience”; they also suggested that the proposed underlying uses might infringe the reproduction, distribution, and adaptation rights of the copyright owners.

Assessing the record in light of the statutory factors, the Register concluded that a limited exemption was appropriate to facilitate the proposed research and development. The Register found that the substantial quantity of inaccessible content, and the likely increase in the amount of content distributed free from any requirement that it be rendered accessible, essentially limits the universe of materials with respect to which individuals with certain disabilities may engage in commentary, criticism, scholarship, and the like. As observed by the Register, the proposal was aimed at allowing the wide range of motion pictures and other audiovisual works that are available to the general population to be accessed and enjoyed by those with disabilities. For such individuals, the exemption represents the difference between having and not having access to works available to everyone else.

The Register determined that the record with respect to research and development was sufficiently clear to support an exemption for those activities. Dr. Christian Vogler of Gallaudet University demonstrated a software development effort aimed at creating a player to combine captions or descriptive audio with commercially available motion picture and audiovisual content. With respect to this project, the Register was able to conclude that the purported use did not implicate the copyrighted content itself, but only certain non-protectable information *about* the work – *i.e.*, the timecode information accessible through the protected “playhead.” Moreover, the Register found that there did not appear to be any reasonable alternatives to circumvention in order to obtain this information. Although, as noted, AACSLA and DVDCCA had indicated a willingness to offer a free license to those interested in developing

accessibility tools for playback devices, the record indicated that no such license was currently in place, and it was unclear whether such a license would come to fruition during the next three years.

The Register found that proponents had demonstrated that there is a wide range of content contained on CSS-protected DVDs and delivered in protected online formats that is inaccessible to individuals with certain disabilities and as to which there is no alternative, accessible version. She further determined that the record did not support the proposition that circumvention was necessary with respect to Blu-ray content, as the same content is generally available on DVDs or online.

Beyond research and development, the Register found that the scope of proponents' intended uses was difficult to discern from proponents' written submissions, as the papers were fraught with broad generalizations. During the hearing, proponents were able to articulate three broad categories of conduct: (1) conducting research and development on accessible technologies to develop a player capable of presenting or manipulating captions or descriptive audio (as discussed above); (2) creating such captions or descriptive audio or corrections thereto; and (3) presenting such captions or descriptive audio along with the underlying lawfully acquired work. Still, the precise contours of certain aspects of the proponents' intended exploitation of the proposed exemption remained elusive.

Pointing to a footnote in *Sony Corporation of America v. Universal Studios, Inc.*, 464 U.S. 417 (1984), which provides in dicta that "making a copy of a copyrighted work for the convenience of a blind person is ... an example of fair use," proponents asserted that each of the broadly defined intended uses was fair. However, fair use analyses are, by statute, necessarily fact specific. Most of the proposed uses relating to the creation of captions and descriptive audio proposed by the proponents were so generally described that the Register found it impossible to

evaluate whether they would be noninfringing. For example, proponents discussed both creating captions for content that is uncaptioned, including through crowdsourcing techniques, and fixing incorrect or poorly implemented captions. Each of these activities could have different implications under a traditional fair use analysis. Absent specific facts pertaining to the particularized uses, however, such an analysis was not possible.

NTIA supported proponents' proposals but suggested that the Register should recraft the exemptions into three categories that it believes were supported by the record. Specifically, NTIA would have fashioned a class specifically aimed at those developing the tools to facilitate the creation, improvement, or rendering of captions and descriptive audio; another class specifically for those engaged in the creation of captions and descriptive audio; and a third class for those using the captions and descriptive audio. NTIA further noted that it did not support the inclusion of Blu-ray because DVD remains the dominant format, online video distribution is outpacing Blu-ray adoption, and the effect of the proposals on the Blu-ray market was uncertain.

The Register and NTIA were in agreement on the need to "open the doors for innovation and empower the millions of Americans with visual and hearing disabilities to participate to the fullest possible extent in our society's multimedia culture." However, for the reasons described above, the Register determined that, based on the current record, a more narrowly tailored class to permit research and development of assistive technologies was appropriate. The Register nonetheless made a point of encouraging the continued development of accessibility technologies and future proposals for exemptions to advance such efforts.

#### **IV. Classes Considered But Not Recommended**

Upon the recommendation of the Register of Copyrights, the Librarian has determined that the following classes of works shall not be exempt from the prohibition against circumvention of technological measures set forth in Section 1201(a)(1)(A):



**A. Literary works in the public domain – digital access**

The Register concluded that the requested exemption to access public domain works was beyond the scope of the rulemaking proceeding and declined to recommend its adoption. As further explained in the 2010 rulemaking, “Section 1201 does not prohibit circumvention of a technological protection measure when it simply controls access to a public domain work; in such a case, it is lawful to circumvent the technological protection measure and there is no need for an exemption.”

Proponent Open Book Alliance (“OBA”) proposed an exemption to permit the circumvention of literary works in the public domain to enable access to works that are digitally distributed. Proponent sought a “clarification” that circumvention of technological measures for the purpose of accessing such literary works does not violate Section 1201(a)(1).

As explained above, Section 1201(a)(1) provides that “[n]o person shall circumvent a technological measure that effectively controls access to a work protected under this title.” The prohibition on circumvention of technological protection measures thus does not apply to public domain materials because such materials are not protected under Title 17.

Joint Creators filed comments in response to OBA’s proposal. Joint Creators did not object to the conclusion that Section 1201(a)(1) is inapplicable to literary works that are in the public domain but cautioned that many distributions of such literary works contain ancillary copyrightable elements, such as cover art, inserts, photographs, prefaces, and the like.

NTIA shared the proponent’s concern that “the implementation of [technological measures] restricts universal access” to public domain material, and that such restrictions “may have a negative impact on educational institutions and research organizations,” as well as other adverse impacts on the public. NTIA also recognized, however, that works in the public domain

are not affected by the prohibition on circumvention. Accordingly, NTIA agreed that an exemption is not required for this class of works.

As Joint Creators observed, questions may arise when a technological measure controls access not only to a work in the public domain, but at the same time controls access to other works that are protected by copyright. There was no need for the Register to address this issue on the record presented, however, because proponents neither raised it nor presented any evidence relating to it.

**B. Video game consoles – software interoperability**

Because the Register determined that the evidentiary record failed to support a finding that the inability to circumvent access controls on video game consoles has, or over the course of the next three years likely would have, a substantial adverse impact on the ability to make noninfringing uses, the Register declined to recommend the proposed class.

EFF, joined by Andrew “bunnie” Huang (“Huang”), FSF, SaurikIT, LLC (SaurikIT), and numerous individual supporters, sought an exemption to permit the circumvention of access controls on video game console computer code so that the consoles could be used with non-vendor-approved software that is lawfully acquired.

EFF observed that modern video game consoles are increasingly sophisticated computing devices that are capable of running not only games but “entire computer operating systems.” All three major video game manufacturers, however – Sony, Microsoft, and Nintendo – have deployed technological restrictions that force console purchasers to limit their operating systems and software exclusively to vendor-approved offerings. These restrictions require a console owner who would like to install a computer operating system or run a “homebrew” (*i.e.*, independently developed) application to defeat a number of technical measures before they can do so – a process that proponents refer to as “jailbreaking.” Proponents sought an exemption

from Section 1201(a)(1) to permit such jailbreaking of video game consoles. Because the class they proposed would enable interoperability only with “lawfully obtained software programs,” proponents asserted that the exemption would not authorize or foster infringing activities.

In its comments, EFF explained the circumvention process with reference to Sony’s PlayStation 3 (“PS3”). Sony’s PS3 employs a series of technological protections so that the console can only install and run authenticated, encrypted code. One such measure is the encryption of the console’s firmware, which restricts access to the console. The firmware must be authenticated by the console’s “bootloader” software and decrypted before it can be used. Once the firmware has been authenticated and decrypted, it, in turn, authenticates applications before they can be installed or run on the PS3. EFF added that Microsoft’s Xbox 360 and Nintendo’s Wii employ similar authentication procedures as technological protection measures.

In further support of its requested exemption, EFF recounted that when Sony launched the PS3 in 2006, it included a software application called “OtherOS” that permitted users to install Linux and UNIX operating systems on their consoles. EFF provided examples of researchers who were able to use these earlier PS3 consoles in lieu of other computer systems to conduct various forms of scientific research, citing an Air Force project that made use of 1700 PS3s, as well as two academic projects employing clusters of PS3s to create high-performance computers. Some of these researchers chose to use clustered PS3s because they were less expensive than the available alternatives. In 2010, however, Sony issued a firmware update for the PS3 that removed the OtherOS functionality. PS3 users were not forced to upgrade, but the failure to adopt the upgrade precluded access to certain gameplay features and might make repair or replacement of the gaming system more difficult.

EFF further asserted that none of the three major console manufacturers currently allows the installation of independently developed applications on their consoles unless the developer

has obtained approval of the software from the manufacturer through a “stringent” process that may require the developer to license costly development tools. As a result, hobbyists and homebrew developers engage in circumvention to defeat technical restrictions in order to create and run games and other applications on the PS3, Wii, and Xbox consoles.

EFF noted over 450 independently created games and applications for Nintendo’s Wii available on the homebrew site WiiBrew.org, as well as some 18 homebrew games and several nongaming applications developed for the PS3 – including a file backup program called “Multiman” and an application that transforms the PS3 into an FTP server – and a handful of other homebrew applications for other platforms and handheld gaming devices. EFF pointed out that there is no strong homebrew community for the Xbox360, attributing this phenomenon to a Microsoft development program that allows developers to publish games “with relative ease.”

Proponents argued that manufacturers’ technological restrictions on video game consoles not only constrain consumer choice but also inhibit scientific research and homebrew development activities. Pointing to the Register’s determination in the last Section 1201 rulemaking that circumvention of technological measures on smartphones to enable interoperability with lawfully obtained applications was a permissible fair use, proponents urged that the same logic should apply here. According to proponents, the restrictions on video game consoles do not protect the value or integrity of copyrighted works but instead reflect a business decision to restrict the applications that users can run on their devices.

EFF explained that a “large community” of console jailbreakers currently exists for all three major video game consoles but noted that such jailbreakers face potential liability under Section 1201(a)(1). As evidence of this, EFF cited recent litigation pursued by Sony against an individual and others who developed a method for jailbreaking the PS3. EFF explained that in January 2010, George Hotz (also known by his online name “GeoHot”) published a method for

jailbreaking the PS3. In response, Sony initiated a lawsuit against Hotz and others alleging, among other things, that the defendants had conspired to violate the DMCA.

Finally, a few supporters of EFF's proposal suggested potential scenarios in which a console might need to be jailbroken to effectuate a repair but did not provide any specific evidence of actual repair issues.

The proposal to permit circumvention of video game consoles was vigorously opposed by the Entertainment Software Association ("ESA"), Sony Computer Entertainment America LLC ("SCEA" or "Sony"), and Joint Creators. Opponents filed extensive comments in response to EFF's request.

ESA characterized video game consoles as "the center of an intellectual property ecosystem" which makes copyrighted content readily and legally accessible, stating that the entire system depends upon effective and secure access controls. ESA explained that there are at least two potential access controls at issue. To play an unauthorized application, the user must circumvent not only the encryption on the console's firmware, but also modify the firmware to defeat the authentication check access control. It added that once modified, the firmware will operate, but the access controls will be circumvented, effectively allowing the console to run unauthorized content.

SCEA's comments focused on its PS3 console (the dominant example addressed in EFF's proposal). SCEA confirmed that the technological restrictions controlling access to the PS3 protect both its firmware and the copyrighted video games that are developed for that system. As explained by SCEA, allowing circumvention of the PS3 access controls would mean that the basic security checks could be skipped and the firmware freely modified to bypass or eliminate the process by which the video games are authenticated for use on the console, thus making it "virtually certain that successful hackers, under the guise of the exemption, will create the tools

that enable even novice users to make, distribute, download, and play back illegal copies of games.”

Throughout their comments, opponents stressed piracy as an overriding concern, noting that once a user circumvents a console’s security measures – even for an ostensibly benign purpose – it becomes a vehicle for unauthorized content. In their view, EFF’s attempt to limit the exemption to interoperability with lawful applications would make no difference in practice, because “all known methods for circumventing game console [technological protection measures] necessarily eliminate the measures’ ability to preclude the play, reproduction and distribution of infringing content.”

In support of their contentions regarding the link between circumvention and piracy, opponents provided documentation of console “hacking packages” that come bundled with applications to play pirated content. They further noted, again with supporting materials, that the homebrew channel installed with a popular Wii hacking package automatically includes applications that enable the console to play pirated content. They pointed out, with still further support in the record, that the “Multiman” backup system referenced by EFF as an example of a useful application enabled by jailbroken PS3s is used to decrypt and copy protected PS3 games so they can be illegally distributed. Other documentary evidence submitted by opponents showed that the PS3 FTP file server application described by EFF is used as a means to transfer illegal files. Opponents also furnished multiple examples of advertisements for console jailbreaking services that included (for an all-in price) a library of pirated games.

Opponents pointed to online forums and other sources that specifically referenced George Hotz’s hack of the PS3 – described sympathetically by EFF in its proposal – as permitting users to play pirated games and content, and provided representative postings. The documentation evidenced a broadly shared perception in the gaming community that jailbreaking leads to

piracy. Notably, some of those providing commentary made the further observation that such piracy would negatively impact the development of new games.

Possibly referring to Hotz, SCEA elaborated on the hacking issue by commenting specifically on the events surrounding a 2010 breach of its PS3 system. In that case, hackers announced that they had successfully circumvented the technological measures on PS3 firmware, which was accomplished by exploiting vulnerabilities in Linux operating in the OtherOS environment. Although the hackers stated that they did not endorse or condone piracy, one hacker subsequently published PS3's encryption keys on the internet, which were quickly used to create jailbreak software to permit the use of illegally made games. Sony saw an immediate rise in the number of illegal copies but no increase in homebrew development, while sales of legitimate software "declined dramatically." As a result of the hack, Sony decided it had no choice but to discontinue OtherOS and issued a system upgrade that disabled OtherOS functionality for those who wished to maintain access to Sony's PlayStation network.

Mindful of the exemption established by the Librarian in the prior proceeding to permit jailbreaking of smartphones, opponents urged that video game consoles are not the equivalent of iPhones, asserting that the technological measures on game consoles legitimately protect the creation and dissemination of copyrighted works by discouraging pirated content and protecting creators' investment in new games. Opponents distinguished the development of a video game – a long and intensive process "akin to ... motion picture production" involving a team of developers that can cost tens of millions of dollars – from the relative ease and inexpensiveness of creating a smartphone application. According to opponents, the development of new video games would be significantly impaired without reliable technological protections to protect developers' investments.

With respect to the need to jailbreak consoles to permit the operation of Linux-based homebrew programs, opponents observed that while EFF's request focused on the PS3, the homebrew community for that device is small, as evidenced by the fact that less than one-tenth of one percent of PS3 users (fewer than 2,000 in all) had made use of the PS3's OtherOS feature. In any event, they noted, there are over 4,000 devices on which Linux can be run without the need for circumvention, and homebrew games and applications can be played on a wide array of open platform devices. Opponents further observed that each of the three major video game console manufacturers has a program to support independent developers in creating and publishing compatible games.

Finally, opponents disputed proponents' suggestion that circumvention is necessary to repair broken game consoles, explaining that each console maker offers authorized repair services free of charge for consoles still under warranty for a nominal fee thereafter.

Although EFF sought to rely upon the Register's 2010 determination that modification of smartphone software to permit interoperability with non-vendor-approved applications was a fair use, the Register concluded that the fair use analysis for video consoles diverged from that in the smartphone context. Unlike in the case of smartphones, the record demonstrated that access controls on gaming consoles protect not only the console firmware, but the video games and applications that run on the console as well. The evidence showed that video games are far more difficult and complex to produce than smartphone applications, requiring teams of developers and potential investments in the millions of dollars. While the access controls at issue might serve to further manufacturers' business interests, they also protect highly valuable expressive works – many of which are created and owned by the manufacturers – in addition to console firmware itself.



The Register noted that research activities and functional applications that proponents claimed would be enabled by circumvention might well constitute transformative uses. On the other hand, circumventing console code to play games and other entertainment content (even if lawfully acquired) is not a transformative use, as the circumvented code is serving the same fundamental purpose as the unbroken code. While the second and third fair use factors did not greatly affect the analysis, on the significant question of market harm, the Register concluded that opponents had provided compelling evidence that circumvention of access controls to permit interoperability of video game consoles – regardless of purpose – had the effect of diminishing the value of, and impairing the market for, the affected code, because the compromised code could no longer serve as a secure platform for the development and distribution of legitimate content. The Register noted that instead of countering this evidence with a factual showing to prove opponents wrong, EFF merely asserted that its proposal would not permit infringing uses. The Register did not believe that this response satisfied proponents’ obligation to address the “real-world impact” of their proposed exemption. Overall, the Register found that proponents had failed to fulfill their obligation to establish persuasively that fair use could serve as a basis for the exemption they sought.

The Register further found that even if proponents had satisfied their burden of establishing noninfringing uses, they nonetheless failed to demonstrate that video game console access controls have or are likely to have a substantial adverse impact on such uses. Proponents identified two broad categories of activities that were allegedly threatened by the prohibition on circumvention, scientific research and homebrew software development. With respect to scientific research, a small number of research projects involving only one type of gaming console, the PS3, suggested a *de minimis* impact, if any. This conclusion was reinforced by record evidence indicating that Sony had in fact cooperated with and been a supporter of

research efforts and that alternative computing resources for such projects were available in the marketplace.

Nor, according to the Register's analysis, did the record support a finding that Section 1201(a)(1) is having a substantial adverse impact on lawful homebrew activities. The most significant level of homebrew activity identified by EFF appears to have occurred in relation to the Wii, but the record was relatively sparse in relation to other gaming platforms. Concerning the use of video game consoles to operate Linux software generally, the record showed that only a very small percentage of PS3 users availed themselves of the (now discontinued) OtherOS option that permitted users to run Linux on their PS3s. At the same time, there are thousands of alternative devices that can be used to develop and run Linux-based video games and other applications. In addition, the record indicated that developers can and do take advantage of various manufacturer programs to pursue independent development activities.

Finally, as noted above, the Register determined that proponents offered no factual basis in support of their suggestion that users are having difficulty repairing their consoles as a result of Section 1201(a)(1). This appeared to be only a hypothetical concern, as proponents failed to document any actual instances of users seeking to make repairs.

The Register therefore concluded that proponents had failed to establish that the prohibition on circumvention, as applied to video game console code, is causing substantial adverse effects.

Turning to the statutory factors, the Register took issue with proponents' view that piracy was an irrelevant consideration because the exemption they sought was only to allow interoperability with "lawfully obtained applications." The Register explained that she could not ignore the record before her. Even if piracy were not the initial or intended purpose for circumvention, the record substantiated opponents' assessment that in the case of video games,

console jailbreaking leads to a higher level of infringing activity, thus sharply distinguishing the case of video consoles from smartphones, where the record did not support the same finding. The evidence also suggested that the restriction limiting the proposed class to “lawfully obtained” applications – which the Register has found effective in other contexts – did not provide adequate assurance in this case. The Register noted that simply to suggest, as proponents had, that unlawful uses were outside the scope of the exemption and therefore of no concern was not a persuasive answer.

Finally, the Register agreed with proponents’ assessment that the access controls protecting video game console code facilitate a business model, as many technological restrictions do. But the Register concluded that in the case of gaming platforms, that was not the sole purpose. Console access controls protect not only the integrity of the console code, but the copyrighted works that run on the consoles. In so doing, they provide important incentives to create video games and other content for consoles, and thus play a critical role in the development and dissemination of highly innovative copyrighted works.

NTIA supported the “innovative spirit epitomized by independent developers and researchers whose needs proponents contemplate in this class,” but noted that the evidence in the record was insufficient to support the considerable breadth of the proposed class. NTIA asserted that the record was unclear with respect to the need for an exemption to enable software interoperability, and that there was compelling evidence of reasonable alternatives available for research purposes. NTIA was also “cognizant of the proposal’s likely negative impact on the underlying business model that has enabled significant growth and innovation in the video game industry.”

Although NTIA did not support the exemption as requested by proponents, it did support a limited exemption to allow videogame console owners to repair or replace hardware

components, or to “obtain unlicensed repairs when the console is out of warranty or when the console and authorized replacement parts are no longer on the market.” As explained above, however, the Register found that the record lacked any factual basis upon which to recommend the designation of even such a limited class.

**C. Personal computing devices – software interoperability**

While the Register recognized that the concern expressed by proponents – that a broad implementation of restrictive access controls could preclude users from installing operating systems and applications of their choice – is a significant one, she found that proponents had relied heavily on speculation and failed to present specific and compelling evidence in support of a focused exemption. The Register therefore declined to recommend the adoption of the proposed class.

Software Freedom Law Center (“SFLC”), supported by FSF, Mozilla, SaurikIT, New Yorkers for Fair Use, Huang, and others, sought an exemption to permit the circumvention of computer programs on personal computing devices to enable the installation of other software, including alternative operating systems, when such software is lawfully obtained. The proposed exemption would have allowed circumvention by the device owner or by someone acting at the device owner’s request.

In requesting this exemption, SFLC explained that there are two broad categories of access controls on personal computing devices: “application locks,” which effectively prevent users from installing certain software applications, and “OS locks,” which effectively prevent users from installing replacement operating systems. Citing the Librarian’s 2010 determination permitting jailbreaking of smartphones to enable interoperability, SFLC asserted that the restrictions addressed by the smartphone exemption have become commonplace on other mobile computing devices and have begun to appear on personal computers. Accordingly, SFLC

contended that the smartphone exemption should be “expanded” to include “all personal computing devices” so as to permit circumvention for the purpose of installing any software the user chooses, including a new operating system.

SFLC explained that the mobile device market, which includes not only smartphones but also tablet computers, is dominated by Google’s Android operating system and Apple’s iOS, which together account for 94 percent of the market. The two most popular ebook readers, Amazon’s Kindle and Barnes & Noble’s Nook, are Android-based devices. According to SFLC, “[a]ll of the restrictions addressed by the [smartphone] exemption are reproduced on the new formats.” Thus, the iOS on the iPhone and iPad limits applications to those obtained from Apple’s store. In the case of Android, users are allowed to install applications obtained from channels other than Google’s Android Marketplace, but Android withholds “many vital privileges” (*i.e.*, important device functionalities) from alternatively sourced applications. In addition, even though the Kindle and Nook are Android-based, Amazon and Barnes & Noble have substituted their own exclusive distribution channels, which cannot be avoided without jailbreaking.

SFLC further observed that Microsoft has announced that it will require hardware manufacturers for the forthcoming Windows 8 operating system to enable a secure boot system – which can function as a type of OS lock – “by default.” It asserted that because Microsoft controls nearly 90 percent of the operating system market, secure boot will be a “nearly ubiquitous” feature on personal computers in the next year. According to SFLC, this will “decimate” what is now a thriving market for alternative PC operating systems. In a further submission to the Copyright Office, however, SFLC conceded that Microsoft had established a program to enable developers to “have their operating systems signed by Microsoft” – *i.e.*, to acquire a secure boot key – for a fee of 99 dollars.

SFLC acknowledged that the stated justification for OS locks is to protect device owners from malicious software by making it impossible for viruses to gain access to, or replace, a device's operating system. But in SFLC's words, "[t]his 'security feature' is undiscerning: it will reject the device owner's intentional installation of an operating system just as it will reject a virus's payload." SFLC observed that "[t]o the extent the firmware lock being circumvented merely prevents unauthorized operating systems from running, it does not protect access to a copyrighted work of the device producer, but rather prevents access to a competing copyrighted work to which the device owner has a license."

On the question of noninfringing use, SFLC asserted that it is not infringing for the owner of a device to install applications that have not been approved by the device's manufacturer. According to SFLC, this conclusion – drawn from the Register's analysis and findings in the 2010 rulemaking proceeding – applies with equal force to application locks on devices other than smartphones, as well as to OS locks. SFLC noted that in 2010, the Register determined that circumvention for the purpose of achieving interoperability was either "noninfringing or fair." SFLC further opined that, while modification of a preinstalled operating system is sometimes necessary to circumvent an application lock, the same is not true of OS locks, as removal of a device's default operating system does not implicate any of the exclusive rights of the owner of the operating system.

The proposed class was opposed by Joint Creators, who argued that the requested exemption "targets every device and every platform, and creates an open-ended standard for circumvention." In their view, if granted, the exemption "would strip any copyright owner, distributor, or licensee from exercising any choices with respect to how to construct a distribution system related to personal computing, and would thus expose copyright owners and their business partners to unnecessary risk, piracy, and unpredictability." Joint Creators

characterized proponents' request as, "at best, premature," and maintained that proponents had failed to meet the substantial burden required for an exemption.

Joint Creators also contended that the "primary effects" of such an exemption would be to enable distribution of pirated applications, and to remove technical limitations that would otherwise protect trial versions of applications. According to Joint Creators, circumvention of technical measures on computer programs is accomplished primarily to unlock trial versions of software or enable access to pirated copies or unauthorized modified versions.

Joint Creators stressed that proponents' arguments in favor of the proposed class were based on speculation rather than facts. They asserted that proponents' comments presented "theories" about what might occur but failed to demonstrate that the scenarios they portrayed were more likely than not. In particular, with respect to the secure boot issue, Joint Creators pointed out that proponents had not identified a single platform that precluded the installation of an alternative operating system.

Finally, Joint Creators asserted that the proposed class – in purporting to immunize circumvention, "performed . . . at the request of the device's owner" – amounted to a request to exempt the provision of circumvention services, which is prohibited under Section 1201(a)(1)(E).

The Register found that proponents had offered very little support for their claim that the uses for which they sought an exemption are noninfringing, even though it is a threshold requirement before an exemption can be considered. Instead, proponents chose to rest their case upon the Register's conclusion in the 2010 rulemaking – in the context of smartphones – that it was not an infringement to install applications that have not been approved by a device's manufacturer. The Register opined that proponents' conclusory declaration that the expansive

set of uses upon which they premised their request was noninfringing was inadequate in the context of the rulemaking.

The Register noted that the record was murky on the especially critical issue of whether the removal of an operating system from a device in its entirety – an activity proponents sought to facilitate through the rulemaking process – required the circumvention of technical measures *before* erasing the operating system, or whether it was possible to remove an operating system without prior circumvention (even if such removal also simultaneously removed the access controls for that operating system). At the hearings, the Copyright Office sought clarification on this point from the parties, but the results were inconclusive. Another question that was not answered by the record was whether an OS lock preventing the operation of an *alternative* operating system is in fact a technological measure protecting a copyrighted work within the meaning of Section 1201(a).

The Register explained that to the extent an operating system can be removed without having first to gain access to the work through an act of circumvention, even if such work is protected for other purposes by technological measures, such removal would not constitute a violation of Section 1201(a)(1). This is because upon deletion of the work, any such technological measure is no longer “effectively control[ing] access” to the work. In such a case, of course, an exemption is unnecessary.

The Register also observed that much of proponents’ concern appeared to be centered on Microsoft’s to be launched Windows 8 operating system and its “secure boot” functionality. But proponents’ own statements indicated that this concern was speculative. It appeared undisputed in the record that, at least as of today, purchasers of PCs are able to install alternative operating systems without resorting to circumvention. Indeed, proponents conceded that the specification allegedly adopted by Microsoft “does not prevent manufacturers from allowing users to disable



the lock or add non-Microsoft keys,” and also acknowledged that Microsoft permitted developers to acquire keys for 99 dollars.

The Register determined that proponents’ suppositions concerning the features of forthcoming software fell short of making a case that the harmful effects they posited were more likely to occur than not. The Register reiterated that mere speculation cannot support an exception to Section 1201(a)(1); rather, predicted adverse effects are only cognizable “in extraordinary circumstances in which the evidence of likelihood of future adverse impact is highly specific, strong and persuasive.” The Register concluded that proponents had failed to offer any such evidence here.

The Register additionally observed that granting an exemption for such a sweeping class would be without precedent in the history of Section 1201 rulemakings. In the past, faced with a proposed class with respect to which the proponents have offered substantial and persuasive evidence, but for which the definition proposed is not fully congruent with the proponents’ showing, the Register has – to the extent a sufficient basis exists in the record – refined the class definition to ensure that it is appropriately tailored to her findings. But such refinement is only possible where the proponent of the proposed class has otherwise succeeded in demonstrating that some version of its exemption is warranted. The Register cannot delineate the appropriate contours of a class “in a factual vacuum.”

As a final consideration, the Register noted that to the extent the proposed class would effectively permit the provision of circumvention services to others – as it appeared to do – it must be rejected, as the provision of such services to others is forbidden under Section 1201(a)(2) of the DMCA.

NTIA was “not convinced that Secure Boot constitutes ‘a technological measure that effectively controls access to a work’ protected by U.S. copyright law.” It further noted that

proponents had failed to present evidence that the secure boot functionality restricted access to Windows 8 or any other work for purposes of protecting copyright. NTIA thus did not support the designation of the proposed class.

**D. Motion pictures and other works on DVDs and other media – space shifting**

The Register concluded that proponents had failed to establish that the prohibition on circumvention is imposing an adverse impact on noninfringing uses and declined to recommend the requested exemptions for space shifting.

Proponent Public Knowledge, as well as proponents Cassiopaea, Tambolini, Susan Fuhs, Kellie Heistand, Andy Kossowsky, and Curt Wiederhoeft, sought similar exemptions to permit the circumvention of motion pictures and other works on DVDs and other media to enable “space shifting,” *i.e.*, the copying of complete works to permit personal use on alternative devices.

Proponent Public Knowledge stated a desire to move lawfully acquired motion pictures on DVDs to consumer electronic devices, such as tablet computers and laptop computers, that lack DVD drives. It asserted that consumers’ inability to play lawfully acquired DVDs on the newest devices adversely affected noninfringing uses of the works contained on DVDs, and that a reasonable solution was for these consumers to copy the motion pictures into a format that could be viewed on the new devices. Public Knowledge urged that such an exemption “would merely allow a user to make use of a motion picture she has already acquired.” The space shifting proposals by the additional proponents – most of which were one page or less – sought similar exemptions, but offered few factual details and little or no legal analysis.

The current proposals were not unlike the proposal sought in the 2006 rulemaking. In that rulemaking, the Register declined to recommend a space shifting exemption in part because the proponents failed to offer persuasive legal arguments that space shifting was a noninfringing use.

The Register also addressed space shifting in the 2003 rulemaking in her consideration of a requested exemption regarding “tethering.” In her 2003 recommendation, the Register observed that “no court has held that ‘space-shifting’ is a fair use.”

Public Knowledge cited *RIAA v. Diamond Multimedia Systems Inc.*, 180 F.3d 1072 (1999), and *Sony Corporation of America v. Universal City Studios, Inc.*, 464 U.S. 417 (1984), in support of its contention that space shifting is a noncommercial personal use, and therefore a fair use. It applied the four-factor fair use test of Section 107 in support of its assertion that the sort of space shifting for which it sought an exemption is a noninfringing use. Public Knowledge further argued that the space shifting would not negatively impact the availability of, or harm the market for, copyrighted works, or contribute to piracy. Finally, Public Knowledge claimed that there were no reasonable alternatives to such space shifting.

Public Knowledge asked the Register to evaluate the legitimacy of personal space shifting through “independent examination.” According to Public Knowledge, the Section 1201(a) rulemaking process of “recommending, consulting, determining, and speculating necessarily requires the Register to draw conclusions beyond parroting the statute and existing case law.”

Proponents of the additional proposals sought to exempt other digital works, including sound recordings and ebooks, in addition to motion pictures, for purposes of space shifting. They offered insufficient factual or legal analysis in support of their proposed exemptions, however.

DVD CCA opposed the requested exemptions by first observing that, although many new electronic devices are made without DVD drives, consumers can still play DVDs on such devices through the use of peripheral tools, *i.e.*, external drives that connect to the devices and are capable of playing DVDs. DVD CCA argued that just because a consumer prefers a portable

device for certain purposes, it does not mean that the consumer is foreclosed from using a different device to play DVDs or that an exemption for space shifting is warranted.

DVD CCA further noted that, contrary to the statements made by Public Knowledge, consumers have not purchased the motion picture itself, but a DVD copy of the motion picture, which affords only the right to access the work according to the DVD format specifications, *i.e.*, through the use of a DVD player. DVD CCA explained that consumers are able to purchase the copy at its retail price – typically less than 20 dollars – because it is distributed on a specific medium that will only play back on a licensed player. It stated that the Register has previously recognized that there is no unqualified right to access a work on a particular device.

DVD CCA alleged that the proposed exemption would harm the market for works distributed in the DVD medium as well as that for works offered in other digital media, explaining that the proposed exemption would displace sales for existing and forthcoming digital offerings that the DMCA was meant to encourage. It further alleged that the proposed exemption would create “public confusion” as to what is permitted activity.

Joint Creators similarly disputed Public Knowledge’s assertion that consumers are adversely affected by an inability to play DVDs on electronic devices that are not designed to play DVDs, pointing to services that provide access to numerous titles for low subscription prices. They argued that it was not the purpose of the rulemaking to provide consumers with the most cost-effective manner to obtain commercial video content.

AACS LA opposed an exemption for space shifting that would apply to AACS technology protecting Blu-ray discs. It noted that proponents had failed to satisfy their burden to demonstrate that an exemption is warranted or that space shifting is a noninfringing act.

The Register recognized that there is significant consumer interest in the proposed exemption. Proponents, however, had the burden of demonstrating that the requested use was

noninfringing. Neither of the two key cases relied upon by proponents, however, addresses or informs the space shifting activities at issue.

The Register noted that she had previously explained that *Diamond Multimedia* – a case in which the court was called upon to interpret the Audio Home Recording Act (“AHRA”) – “did not hold that ‘space-shifting’ is fair use. It did state, in dicta, that ‘space-shifting’ of digital and analog musical recordings is a noncommercial personal use consistent with the Audio Home Recording Act.” Notably, neither *Diamond Multimedia*, nor the statute it interpreted, addressed motion pictures, the focus of Public Knowledge’s proposal.

Turning to *Sony*, the Register clarified that that case involved “time-shifting,” defined by the Supreme Court as “the practice of recording a program to view it once at a later time, and thereafter erasing it.” It did not address the legality of “librarying,” *i.e.*, the maintenance of copies of copyrighted works. Here, by contrast, librarying was among the activities contemplated by the proposed exemptions.

The Register further observed that the law does not guarantee access to copyrighted material in a user’s preferred format or technique. Indeed, copyright owners typically have the legal authority to decide whether and how to exploit new formats. The Register noted that while the law may someday evolve to accommodate some of proponents’ proposed uses, more recent cases touching upon space shifting confirm that the fair use implications of various forms of space shifting are far from settled. The Register reiterated her view that the Section 1201 rulemaking process was “not the forum in which to break new ground on the scope of fair use.” She then proceeded to assess the proposed exemptions under the traditional fair use factors.

In urging that space shifting is a fair use, Public Knowledge characterized the copying of motion pictures for use on personal devices as a “paradigmatic noncommercial personal use” that could facilitate a transformative use. It further asserted that integrating reproductions of motion

pictures from DVDs into a consumer's media management software was analogous to the integration of thumbnail images into internet search engines found to be a transformative use in *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701 (9th Cir. 2007).

The Register did not agree with this analysis. In her view, the incorporation of reproductions of motion pictures from DVDs into a consumer's media management software is not equivalent to the provision of public search engine functionality. Rather, it is simply a means for an individual consumer to access content for the same entertainment purpose as the original work. Put another way, it does not "add[] something new, with a further purpose or different character, altering the first with new expression, meaning," or advance criticism, comment, or any other interest enumerated in the preamble of Section 107. The Register therefore concluded that the first fair use factor did not favor a finding of fair use. The Register additionally determined that where creative works were being copied in their entirety, factors two and three also weighed against fair use, and that there was an inadequate basis in the record to conclude that the developing market for the online distribution of motion pictures would not be harmed by the proposed uses.

Finally, the Register concluded that proponents had failed to demonstrate that the use of a reasonably priced peripheral, a different device, or an online subscription service to access and play desired content did not offer a reasonable alternative to circumvention. Accordingly, the Register was not persuaded that the inability to engage in the space shifting activities described by proponents is having a substantial adverse impact on consumers' ability to make noninfringing uses of copyrighted works.

NTIA suggested what it described as a "more narrowly-constructed" version of Public Knowledge's proposed exemption. Specifically, it supported an exemption to allow circumvention of lawfully acquired DVDs "when the DVD neither contains nor is accompanied

by an additional copy of the work in an alternative digital format, and when circumvention is undertaken solely in order to accomplish the noncommercial space shifting of the contained motion picture.” NTIA voiced support for the motion picture industry’s efforts to make content available on the wide range of new devices, and encouraged the industry to continue developing new offerings. It contended that by limiting the exemption to circumstances in which the market had not supplied alternatives to DVDs, “the potential adverse effect on the market is minimal.”

The Register likewise expressed support for the motion picture industry’s innovation and the development of market approaches to satisfy the demand for electronically distributed content. But while the Register was sympathetic to the desire to consume content on a variety of different devices, she noted that there is no basis under current law to assume that the space shifting activities that would be permitted under NTIA’s proposal would be noninfringing. Moreover, in light of the record before her, the Register did not find that such activities would not adversely affect the legitimate future markets of copyright owners.

## **V. Conclusion**

Having considered the evidence in the record, the contentions of the commenting parties, and the statutory objectives, the Register of Copyrights has recommended that the Librarian of Congress publish certain classes of works, as designated above, so that the prohibition against circumvention of technological measures that effectively control access to copyrighted works shall not apply to persons who engage in noninfringing uses of those particular classes of works.

**Dated:** October 22, 2012

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**Maria A. Pallante,**  
Register of Copyrights.

## Determination of the Librarian of Congress

Having duly considered and accepted the Recommendation of the Register of Copyrights, which Recommendation is hereby incorporated by reference, the Librarian of Congress is exercising his authority under 17 U.S.C. 1201(a)(1)(C) and (D) and is publishing as a new rule the classes of copyrighted works that shall be subject to the exemption found in 17 U.S.C. 1201(a)(1)(B) from the prohibition against circumvention of technological measures that effectively control access to copyrighted works set forth in 17 U.S.C. 1201(a)(1)(A).

### List of Subjects in 37 CFR Part 201

Copyright, Exemptions to prohibition against circumvention.

### Final Regulations

For the reasons set forth in the preamble, 37 CFR part 201 is amended as follows:

#### PART 201—GENERAL PROVISIONS

1. The authority citation for part 201 continues to read as follows:

**Authority:** 17 U.S.C. 702

2. Section 201.40 is amended by revising paragraph (b) to read as follows:

#### § 201.40 Exemption to prohibition against circumvention.

\* \* \* \* \*

(b) *Classes of copyrighted works.* Pursuant to the authority set forth in 17 U.S.C. 1201(a)(1)(C) and (D), and upon the recommendation of the Register of Copyrights, the Librarian has determined that the prohibition against circumvention of technological measures that effectively control access to copyrighted works set forth in 17 U.S.C. 1201(a)(1)(A) shall not apply to persons who engage in noninfringing uses of the following classes of copyrighted works:



(1) Literary works, distributed electronically, that are protected by technological measures which either prevent the enabling of read-aloud functionality or interfere with screen readers or other applications or assistive technologies in the following instances:

(i) When a copy of such a work is lawfully obtained by a blind or other person with a disability, as such a person is defined in 17 U.S.C. 121; provided, however, the rights owner is remunerated, as appropriate, for the price of the mainstream copy of the work as made available to the general public through customary channels; or

(ii) When such work is a nondramatic literary work, lawfully obtained and used by an authorized entity pursuant to 17 U.S.C. 121.

(2) Computer programs that enable wireless telephone handsets to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the telephone handset.

(3) Computer programs, in the form of firmware or software, that enable a wireless telephone handset originally acquired from the operator of a wireless telecommunications network or retailer no later than ninety days after the effective date of this exemption to connect to a different wireless telecommunications network, if the operator of the wireless communications network to which the handset is locked has failed to unlock it within a reasonable period of time following a request by the owner of the wireless telephone handset, and when circumvention is initiated by the owner, an individual consumer, who is also the owner of the copy of the computer program in such wireless telephone handset, solely in order to connect to a different wireless telecommunications network, and such access to the network is authorized by the operator of the network.

(4) Motion pictures, as defined in 17 U.S.C. 101, on DVDs that are lawfully made and acquired and that are protected by the Content Scrambling System, where the person engaging in

circumvention believes and has reasonable grounds for believing that circumvention is necessary because reasonably available alternatives, such as noncircumventing methods or using screen capture software as provided for in alternative exemptions, are not able to produce the level of high-quality content required to achieve the desired criticism or comment on such motion pictures, and where circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances:

- (i) In noncommercial videos;
- (ii) In documentary films;
- (iii) In nonfiction multimedia ebooks offering film analysis; and

(iv) For educational purposes in film studies or other courses requiring close analysis of film and media excerpts, by college and university faculty, college and university students, and kindergarten through twelfth grade educators. For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.

(5) Motion pictures, as defined in 17 U.S.C. 101, that are lawfully made and acquired via online distribution services and that are protected by various technological protection measures, where the person engaging in circumvention believes and has reasonable grounds for believing that circumvention is necessary because reasonably available alternatives, such as noncircumventing methods or using screen capture software as provided for in alternative exemptions, are not able to produce the level of high-quality content required to achieve the desired criticism or comment on such motion pictures, and where circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances:

- (i) In noncommercial videos;

(ii) In documentary films;

(iii) In nonfiction multimedia ebooks offering film analysis; and

(iv) For educational purposes in film studies or other courses requiring close analysis of film and media excerpts, by college and university faculty, college and university students, and kindergarten through twelfth grade educators. For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.

(6)(i) Motion pictures, as defined in 17 U.S.C. 101, on DVDs that are lawfully made and acquired and that are protected by the Content Scrambling System, where the circumvention, if any, is undertaken using screen capture technology that is reasonably represented and offered to the public as enabling the reproduction of motion picture content after such content has been lawfully decrypted, when such representations have been reasonably relied upon by the user of such technology, when the person engaging in the circumvention believes and has reasonable grounds for believing that the circumvention is necessary to achieve the desired criticism or comment, and where the circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances:

(A) In noncommercial videos;

(B) In documentary films;

(C) In nonfiction multimedia ebooks offering film analysis; and

(D) For educational purposes by college and university faculty, college and university students, and kindergarten through twelfth grade educators.

(ii) For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.

(7)(i) Motion pictures, as defined in 17 U.S.C. 101, that are lawfully made and acquired via online distribution services and that are protected by various technological protection measures, where the circumvention, if any, is undertaken using screen capture technology that is reasonably represented and offered to the public as enabling the reproduction of motion picture content after such content has been lawfully decrypted, when such representations have been reasonably relied upon by the user of such technology, when the person engaging in the circumvention believes and has reasonable grounds for believing that the circumvention is necessary to achieve the desired criticism or comment, and where the circumvention is undertaken solely in order to make use of short portions of the motion pictures for the purpose of criticism or comment in the following instances:

(A) In noncommercial videos;

(B) In documentary films;

(C) In nonfiction multimedia ebooks offering film analysis; and

(D) For educational purposes by college and university faculty, college and university students, and kindergarten through twelfth grade educators.

(ii) For purposes of this exemption, “noncommercial videos” includes videos created pursuant to a paid commission, provided that the commissioning entity’s use is noncommercial.

(8) Motion pictures and other audiovisual works on DVDs that are protected by the Content Scrambling System, or that are distributed by an online service and protected by technological measures that control access to such works, when circumvention is accomplished solely to access the playhead and/or related time code information embedded in copies of such works and solely for the purpose of conducting research and development for the purpose of creating players capable of rendering visual representations of the audible portions of such works and/or audible representations or descriptions of the visual portions of such works to enable an

individual who is blind, visually impaired, deaf, or hard of hearing, and who has lawfully obtained a copy of such a work, to perceive the work; provided however, that the resulting player does not require circumvention of technological measures to operate.

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**Dated:** October 22, 2012

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**James H. Billington,**  
The Librarian of Congress.

**[BILLING CODE 1410-30-P]**

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