

LIBRARY OF CONGRESS

Copyright Office

37 CFR Part 201

[Docket No. RM 99-7D]

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

AGENCY: Copyright Office, Library of Congress.

ACTION: Final Rule.

SUMMARY: This rule designates the classes of copyrighted works that the Librarian of Congress has determined shall be subject to exemption from the prohibition against circumvention of a technological measure that effectively controls access to a work protected under title 17 of the U.S. Code. In title I of the Digital Millennium Copyright Act, Congress established that this prohibition against circumvention will become effective October 28, 2000. The same legislation directed the Register of Copyrights to conduct a rulemaking procedure and to make recommendations to the Librarian as to whether any classes of works should be subject to exemptions from the prohibition against circumvention. The exemptions set forth in this rule will be in effect until October 28, 2003.

EFFECTIVE DATE: October 28, 2000.

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SUPPLEMENTARY INFORMATION:**Recommendation of the Register of Copyrights****I. Background***A. Legislative Requirements for Rulemaking Proceeding*

The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) require that Contracting Parties provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that authors or other copyright owners (or, in the case of the WPPT, performers and producers of phonograms) use in connection with the exercise of their rights and that restrict acts which they

have not authorized and are not permitted by law.¹

In fulfillment of these treaty obligations, on October 28, 1998, the United States enacted the Digital Millennium Copyright Act ("DMCA"), Pub. L. 105-304 (1998). Title I of the Act added a new Chapter 12 to Title 17 U.S.C., which among other things prohibits circumvention of access control technologies employed by or on behalf of copyright owners to protect their works. Specifically, new subsection 1201(a)(1)(A) provides, *inter alia*, that "No person shall circumvent a technological measure that effectively controls access to a work protected under this title." Congress found it appropriate to modify the prohibition to assure that the public will have continued ability to engage in noninfringing uses of copyrighted works, such as fair use. See the Report of the House Committee on Commerce on the Digital Millennium Copyright Act of 1998, H.R. Rep. No. 105-551, pt. 2, at 36 (1998) (hereinafter *Commerce Comm. Report*). Subparagraph (B) limits this prohibition. It provides that the prohibition against circumvention "shall not apply to persons who are users of a copyrighted work which is in a particular class of works, if such persons are, or are likely to be in the succeeding 3-year period, adversely affected by virtue of such prohibition in their ability to make noninfringing uses of that particular class of works under this title" as determined in this rulemaking. This prohibition on circumvention becomes effective on October 28, 2000, two years after the date of enactment of the DMCA.

During the 2-year period between the enactment and the effective date of the provision, the Librarian of Congress must make a determination as to classes of works exempted from the prohibition. This determination is to be made upon the recommendation of the Register of Copyrights in a rulemaking proceeding. The determination thus made will remain in effect during the succeeding three years. In making her recommendation, the Register of Copyrights is to consult with the Assistant Secretary for Communications and Information of the Department of Commerce and report and comment on

¹ The treaties were adopted on December 20, 1996 at a World Intellectual Property Organization (WIPO) Diplomatic Conference on Certain Copyright and Neighboring Rights Questions. The United States ratified the treaties in September, 1999. The treaties will go into effect after 30 instruments of ratification or accession by States have been deposited with the Director General of WIPO.

the Assistant Secretary's views. 17 U.S.C. 1201(a)(1)(C).

A more complete explanation of the development of the legislative requirements is set out in the Notice of Inquiry published on November 24, 1999, 64 FR 66139, and is also available on the Copyright Office's website at: <http://www.loc.gov/copyright/1201/anticirc.html>. See also the discussion in section III.A. below.

B. Responsibilities of Register of Copyrights and Librarian of Congress

The prohibition against circumvention is subject to delayed implementation in order to permit a determination whether users of particular classes of copyrighted works are likely to be adversely affected by the prohibition in their ability to make noninfringing uses. By October 28, 2000, upon the recommendation of the Register of Copyrights in a rulemaking proceeding, the Librarian of Congress must determine whether to exempt certain classes of works (which he must identify) from the application of the prohibition against circumvention during the next three years because of such adverse effects.

The Register was directed to conduct a rulemaking proceeding, soliciting public comment and consulting with the Assistant Secretary of Commerce for Communications and Information, and then to make a recommendation to the Librarian, who must make a determination whether any classes of copyrighted works should be exempt from the statutory prohibition against circumvention during the three years commencing on that date.

The primary responsibility of the Register and the Librarian in this respect is to assess whether the implementation of technological protection measures that effectively control access to copyrighted works (hereinafter "access control measures") is diminishing the ability of individuals to use copyrighted works in ways that are otherwise lawful. *Commerce Comm. Report*, at 37. As examples of technological protection measures in effect today, the Commerce Committee offered the use of "password codes" to control authorized access to computer programs and encryption or scrambling of cable programming, videocassettes, and CD-ROMs. *Id.*

The prohibition becomes effective on October 28, 2000, and any exemptions to that prohibition must be in place by that time. Although it is difficult to measure the effect of a future prohibition, Congress intended that the Register solicit input that would enable consideration of a broad range of current or likely future adverse impacts. The

nature of the inquiry is delineated in the statutory areas to be examined, as set forth in section 1201(a)(1)(C):

- (i) The availability for use of copyrighted works;
- (ii) The availability for use of works for nonprofit archival, preservation, and educational purposes;
- (iii) The impact that the prohibition on the circumvention of technological measures applied to copyrighted works has on criticism, comment, news reporting, teaching, scholarship, or research;
- (iv) The effect of circumvention of technological measures on the market for or value of copyrighted works; and
- (v) Such other factors as the Librarian considers appropriate.

II. Solicitation of Public Comments and Hearings

On November 24, 1999, the Office initiated the rulemaking procedure with publication of a Notice of Inquiry. 64 FR 66139. The Notice of Inquiry requested written comments from all interested parties, including representatives of copyright owners, educational institutions, libraries and archives, scholars, researchers and members of the public. The Office devoted a great deal of attention in this Notice to setting out the legislative parameters and developing questions related to the criteria Congress had established. The Office was determined to make the comments it received available immediately in order to elicit a broad range of public comment; therefore, it stated a preference for submission of comments in certain electronic formats. *Id.* In response to some commenters' views that the formats permitted were not sufficient, the Office expanded the list of formats in which comments could be submitted. 65 FR 6573 (February 10, 2000). In the same document, the Office extended the comment period: comments would be due by February 17, 2000 and reply comments by March 20, 2000. On March 17, the Office extended the reply comment period to March 31; scheduled hearings to take place in Washington, DC on May 2–4 and in Palo Alto, California, at Stanford University on May 18–19; and set a June 23, 2000 deadline for submission of post-hearing comments. 65 FR 14505 (March 17, 2000). All of these notices were published not only in the **Federal Register**, but also on the Office's website.

In response to the Notice of Inquiry, the Office received 235 initial comments and 129 reply comments. Thirty-four witnesses representing over 50 groups testified at five days of hearings held in either Washington, DC or Palo Alto, California. The Office placed all initial comments, reply comments, optional

written statements of the witnesses and the transcripts of the two hearings on its website shortly after their receipt. Following the hearings, the Office received 28 post-hearing comments, which were also posted on the website. All of these commenters and witnesses are identified in the indexes that appear on the Office's website.

The comments received represent a broad perspective of views ranging from representatives or individuals who urged there should be broad exemptions to those who opposed any exemption; they also included a number of comments about various other aspects of the Digital Millennium Copyright Act. The Copyright Office has now exhaustively reviewed and analyzed the entire record, including all of the comments and the transcripts of the hearings in order to determine whether any class of copyrighted works should be exempt from the prohibition against circumvention during the next three years.²

III. Discussion

A. The Purpose and Focus of the Rulemaking

1. Purpose of the Rulemaking

As originally reported out of the Senate Judiciary Committee on May 11, 1998, S. Rep. No. 105–190 (1998), and the House Judiciary Committee on May 22, 1998, H.R. Rep. No. 105–551, pt. I (1998), section 1201(a)(1) consisted of only one sentence—what is now the first sentence of section 1201(a)(1): “No person shall circumvent a technological measure that effectively controls access to a work protected under this title.” Section 1201(a)(2), like the provision finally enacted, prohibited the manufacture, importation, offering to the public, providing or otherwise trafficking in any technology, product, service, device, or component to circumvent access control measures. Section 1201(a) thus addressed “access control” measures, prohibiting both the conduct of circumventing those measures and devices that circumvent them. Thus, section 1201(a) prohibits both the conduct of circumventing access control measures and trafficking

in products, services and devices that circumvent access control measures.

In addition to section 1201(a)(1)'s prohibition on circumvention of access control measures, section 1201 also addressed circumvention of a different type of technological measure. Section 1201(b), in the versions originally reported by the House and Senate Judiciary Committees and in the statute finally enacted, prohibited the manufacture, importation, offering to the public, providing or otherwise trafficking in any technology, product, service, device, or component to circumvent protection afforded by a technological measure that effectively protects a right of a copyright owner under title 17 in a copyrighted work. The type of technological measure addressed in section 1201(b) includes copy-control measures and other measures that control uses of works that would infringe the exclusive rights of the copyright owner. They will frequently be referred to herein as copy controls. But unlike section 1201(a), which prohibits both the conduct of circumvention and devices that circumvent, section 1201(b) does not prohibit the conduct of circumventing copy control measures. The prohibition in section 1201(b) extends only to devices that circumvent copy control measures. The decision not to prohibit the conduct of circumventing copy controls was made, in part, because it would penalize some noninfringing conduct such as fair use.

In the House of Representatives, the DMCA was sequentially referred to the Committee on Commerce after it was reported out of the Judiciary Committee. The Commerce Committee was concerned that section 1201, in its original form, might undermine Congress' commitment to fair use. Commerce Comm. Report, at 35. While acknowledging that the growth and development of the Internet has had a significant positive impact on the access of students, researchers, consumers, and the public at large to information and that a “plethora of information, most of it embodied in materials subject to copyright protection, is available to individuals, often for free, that just a few years ago could have been located and acquired only through the expenditure of considerable time, resources, and money,” *Id.*, the Committee was concerned that “marketplace realities may someday dictate a different outcome, resulting in less access, rather than more, to copyrighted materials that are important to education, scholarship, and other socially vital endeavors.” *Id.* at 36. Possible measures that might lead to

² In referring to the comments and hearing materials, the Office will use the following abbreviations: C-Comment, R-Reply Comment, PH-Post Hearing Comments, T + speaker and date—Transcript (ex. “T Laura Gasaway, 5/18/00”) and WS + speaker—Written statements (ex. “WS Vaidhyanathan”). Citations to page numbers in hearing transcripts are to the hard copy transcripts at the Copyright Office. For the hearings in Washington, DC, the pagination of those transcripts differs from the pagination of the versions of the transcript available on the Copyright Office website.

such an outcome included the elimination of print or other hard-copy versions, permanent encryption of all electronic copies and adoption of business models that restrict distribution and availability of works. The Committee concluded that “[i]n this scenario, it could be appropriate to modify the flat prohibition against the circumvention of effective technological measures that control access to copyrighted materials, in order to ensure that access for lawful purposes is not unjustifiably diminished.” *Id.*

In order to address such possible developments, the Commerce Committee proposed a modification of section 1201 which it characterized as a “‘fail-safe’ mechanism.” *Id.* As the Committee Report describes it, “This mechanism would monitor developments in the marketplace for copyrighted materials, and allow the enforceability of the prohibition against the act of circumvention to be selectively waived, for limited time periods, if necessary to prevent a diminution in the availability to individual users of a particular category of copyrighted materials.” *Id.*

The “fail-safe” mechanism is this rulemaking. In its final form as enacted by Congress, slightly modified from the mechanism that appeared in the version of the DMCA reported out of the Commerce Committee, the Register is to conduct a rulemaking proceeding and, after consulting with the Assistant Secretary for Communications and Information of the Department of Commerce, recommend to the Librarian whether he should conclude “that persons who are users of a copyrighted work are, or are likely to be in the succeeding 3-year period, adversely affected by the prohibition under [section 1201(a)(1)(A)] in their ability to make noninfringing uses under [Title 17] of a particular class of copyrighted works.” 17 U.S.C. 1201(a)(1)(C). “The Librarian shall publish any class of copyrighted works for which the Librarian has determined, pursuant to the rulemaking conducted under subparagraph (C), 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.” 17 U.S.C. 1201(a)(1)(C).

The Commerce Committee offered additional guidance as to the task of the Register and the Librarian in this rulemaking. “The goal of the proceeding is to assess whether the implementation of technological protection measures that effectively control access to

copyrighted works is adversely affecting the ability of individual users to make lawful uses of copyrighted works * * *. The primary goal of the rulemaking proceeding is to assess whether the prevalence of these technological protections, with respect to particular categories of copyrighted materials, is diminishing the ability of individuals to use these works in ways that are otherwise lawful.” Commerce Comm. Report, at 37. Accord: Staff of House Committee on the Judiciary, 105th Cong., Section-By-Section Analysis of H.R. 2281 as Passed by the United States House of Representatives on August 4, 1998, (hereinafter House Manager’s Report) (Rep. Coble)(Comm. Print 1998), at 6. The Committee observed that the effective date of section 1201(a)(1) was delayed for two years in order “to allow the development of a sufficient record as to how the implementation of these technologies is affecting availability of works in the marketplace for lawful uses.” Commerce Comm. Report, at 37.

Thus, the task of this rulemaking appears to be to determine whether the availability and use of access control measures has already diminished or is about to diminish the ability of the public to engage in the lawful uses of copyrighted works that the public had traditionally been able to make prior to the enactment of the DMCA. As the Commerce Committee Report stated, in examining the factors set forth in section 1201(a)(1)(C), the focus must be on “whether the implementation of technological protection measures (such as encryption or scrambling) has caused adverse impact on the ability of users to make lawful uses.” *Id.*

2. The Necessary Showing

The language of section 1201(a)(1) does not offer much guidance as to the respective burdens of proponents and opponents of any classes of works to be exempted from the prohibition on circumvention. Of course, it is a general rule of statutory construction that exemptions must be construed narrowly in order to preserve the purpose of a statutory provision, and that rule is applied in interpreting the copyright law. *Tasini v. New York Times Co.*, 206 F.3d 161, 168 (2d Cir. 2000). Moreover, the burden is on the proponent of the exemption to make the case for exempting any particular class of works from the operation of section 1201(a)(1). See 73 Am. Jur. 2d 313 (1991) (“[s]tatutes granting exemptions from their general operation [to] be strictly construed, and any doubt must be resolved against the one asserting the exemption.”) Indeed, the House Commerce Committee stated that “The

regulatory prohibition is *presumed to apply* to any and all kinds of works, including those as to which a waiver of applicability was previously in effect, unless, and until, the Secretary makes a new determination that the *adverse impact criteria have been met* with respect to a particular class and therefore issues a new waiver.” Commerce Comm. Report, at 37 (emphasis added).³

The legislative history makes clear that a determination to exempt a class of works from the prohibition on circumvention must be based on a determination that the prohibition has a substantial adverse effect on noninfringing use of that particular class of works. The Commerce Committee noted that the rulemaking proceeding is to focus on “distinct, verifiable, and measurable impacts, and should not be based upon de minimis impacts.” Commerce Comm. Report, at 37. “If the rulemaking has produced insufficient evidence to determine whether there have been adverse impacts with respect to particular classes of copyrighted works, the circumvention prohibition should go into effect with respect to those classes.” *Id.* at 38. Similarly, the House Manager’s Report stated that “[t]he focus of the rulemaking proceeding must remain on whether the prohibition on circumvention of technological protection measures (such as encryption or scrambling) has caused any substantial adverse impact on the ability of users to make non-infringing uses,” and suggested that “mere inconveniences, or individual cases * * * do not rise to the level of a substantial adverse impact.” House Manager’s Report, at 6.⁴ See also *Connecticut Department of Public Utility Control v. Federal Communications Commission*, 78 F.3d 842, 851 (2d Cir. 1996) (“It is reasonable

³ The Commerce Committee proposal would have placed responsibility for the rulemaking in the hands of the Secretary of Commerce. As finally enacted, the DMCA shifted that responsibility to the Librarian, upon the recommendation of the Register.

⁴ Some commenters have suggested that the House Manager’s Report is entitled to little deference as legislative history. See, e.g., PH18, p. 3. However, because that report is consistent with the Commerce Committee Report, there is no need in this rulemaking to determine whether the Manager’s Report is entitled to less weight than the Commerce Committee Report. Some critics of the Manager’s Report have objected to its statement that the focus of this proceeding should be on whether there is a “substantial adverse impact” on noninfringing uses. However, they have failed to explain how this statement is anything other than another way of saying what the Commerce Committee said when it said the determination should be based on “distinct, verifiable, and measurable impacts, and should not be based upon de minimis impacts.”

to characterize as 'substantial' the burden faced by a party seeking an exemption from a general statutory rule").

Although future adverse impacts may also be considered, the Manager's Report states that "the determination should be based upon anticipated, rather than actual, adverse impacts only in extraordinary circumstances in which the evidence of likelihood of future adverse impact during that time period is highly specific, strong and persuasive. Otherwise, the prohibition would be unduly undermined." *Id.* Although the Commerce Committee Report does not state how future adverse impacts are to be evaluated (apart from a single reference stating that in categories where adverse impacts have occurred or "are likely to occur," an exemption should be made, Commerce Comm. Report at 38), the Committee's discussion of "distinct, verifiable and measurable impacts" suggests that it would require a similar showing with respect to future adverse impact.

The legislative history also requires the Register and Librarian to disregard any adverse effects that are caused by factors other than the prohibition against circumvention. The House Manager's Report is instructive:

The focus of the rulemaking proceeding must remain on whether the prohibition on circumvention of technological protection measures (such as encryption or scrambling) has caused any substantial adverse impact on the ability of users to make non-infringing uses. Adverse impacts that flow from other sources * * * or that are not clearly attributable to such a prohibition, are outside the scope of the rulemaking.

House Manager's Report, at 6. The House Commerce Committee came to a similar conclusion, using similar language. Commerce Comm. Report, at 37.

In fact, some technological protection measures may mitigate adverse effects. The House Manager's Report notes that:

In assessing the impact of the implementation of technological measures, and of the law against their circumvention, the rule-making proceedings should consider the positive as well as the adverse effects of these technologies on the availability of copyrighted materials. The technological measures—such as encryption, scrambling, and electronic envelopes—that this bill protects can be deployed, not only to prevent piracy and other economically harmful unauthorized uses of copyrighted materials, but also to support new ways of disseminating copyrighted materials to users, and to safeguard the availability of legitimate uses of those materials by individuals.

House Manager's Report, at 6.

Another mitigating factor may arise when a work as to which the copyright

owner has instituted a technological control is also available in formats that are not subject to technological protections. For example, a work may be available in electronic format only in encrypted form, but may also be available in traditional hard copy format which has no such technological restrictions on access. The availability without restriction in the latter format may alleviate any adverse effect that would otherwise result from the technological controls utilized in the electronic format. The availability of works in such other formats is to be considered when exemptions are fashioned. *Id.* at 7.

3. Determination of "Class of Works"

One of the key issues discussed in comments and testimony was how a "class" of works is to be defined. The Office's initial notice of inquiry highlighted this issue, asking for comments from the public on the criteria to be used in determining what a "class of works" is and on whether works could be classified in part based on the way in which they are being used. See questions 16, 17 and 23, 64 FR at 66143. A joint submission by a number of library associations took the position that the Librarian should adopt a "function-based" definition of classes of works." C162, p. 32. The same submission stated that "the class of works should be defined, in part, according to the ways they are being used because that is precisely how the limitations on the otherwise exclusive rights of copyright holders are phrased," *Id.*, p. 36, and concluded that "all categories of copyrighted works should be covered by this rulemaking." *Id.*, p. 38. In contrast, a coalition of organizations representing copyright owners argued for a narrower approach, rejecting a focus on particular types of uses of works or on particular access control technologies. R112, p. 10. One association of copyright owners argued that a "class" should not be defined by reference to any particular medium (such as digital versatile discs, or DVD's), but rather by reference to "a type or types of works." R59, p. 8. Many representatives of copyright owners repeated the legislative history that "the 'particular class of copyrighted works' be a narrow and focused subset of the broad categories of works of authorship than is [sic] identified in section 102 of the Copyright Act (17 U.S.C. 102)." See, e.g., *Id.*, (quoting Commerce Comm. Report, at 38). A representative of a major copyright owner took the position that "defining 'classes' of works is neither feasible nor appropriate" and that "[b]efore there is any movement in

the direction of exempting certain works or 'classes' of works from the prohibition against circumvention, those who support such exemption should come forward with proof that users who desire to make non-infringing uses or avail themselves of the fair use defense are prevented from doing so by the technological protections." C43, p.6.

Based on a review of the statutory language and the legislative history, the view that a "class" of works can be defined in terms of the status of the user or the nature of the intended use appears to be untenable. Section 1201(a)(1)(B) refers to "a copyrighted work which is in a particular class of works." Section 1201(a)(1)(C) refers to "a particular class of copyrighted works." Section 1201(a)(1)(D) "any class of copyrighted works." This statutory language appears to require that the Librarian identify a "class of works" based upon attributes of the works themselves, and not by reference to some external criteria such as the intended use or users of the works. The dictionary defines "class" as "a group, set or kind sharing common attributes." Webster's New Collegiate Dictionary 211 (1995).

Moreover, the phrase "class of works" connotes that the common attributes relate to the nature of authorship in the works. Although the Copyright Act does not define "work," the term is used throughout the copyright law to refer to a work of authorship, rather than to a material object on which the work appears or to the readers or users of the work. See, e.g., 17 U.S.C. 102(a) ("Copyright protection subsists, in accordance with this title, in original *works of authorship* fixed in any tangible medium of expression, * * *) (emphasis added) and the catalog of the types of works protected by copyright set forth in section 102(a)(1)–(8) ("literary works," "musical works," "dramatic works," *etc.*).

Nevertheless, the statutory language is arguably ambiguous, and one could imagine an interpretation of section 1201(a)(1) that permitted a class of works to be defined in terms of criteria having nothing to do with the intrinsic qualities of the works. In such a case, resort to legislative history might clarify the meaning of the statute. In this case, the legislative history appears to leave no other alternative than to interpret the statute as requiring a "class" to be defined primarily, if not exclusively, by reference to attributes of the works themselves.

The Commerce Committee Report addressed the issue of determining a class of works:

The issue of defining the scope or boundaries of a “particular class” of copyrighted works as to which the implementation of technological protection measures has been shown to have had an adverse impact is an important one to be determined during the rulemaking proceedings. In assessing whether users of copyrighted works have been, or are likely to be adversely affected, the Secretary shall assess users’ ability to make lawful uses of works “within each particular class of copyrighted works specified in the rulemaking.” The Committee intends that the “particular class of copyrighted works” be a narrow and focused subset of the broad categories of works of authorship than [sic] is identified in section 102 of the Copyright Act (17 U.S.C. 102).

Commerce Comm. Report, at 38.⁵

A “narrow and focused subset of the broad categories of works of authorship * * * identified in section 102” presumably must use, as its starting point, the categories of authorship set forth in section 102: literary works; musical works; dramatic works; pantomimes and choreographic works; pictorial, graphic, and sculptural works; motion pictures and other audiovisual works; sound recordings; and architectural works.

Moreover, the Commerce Committee Report states that the task in this rulemaking proceeding is to determine whether the prevalence of access control measures, “with respect to *particular categories* of copyrighted materials, is diminishing the ability of individuals to use these works in ways that are otherwise lawful.” Commerce Comm. Report, at 37 (emphasis added). In fact, the Report refers repeatedly to “categories” of works in connection with the findings to be made in this rulemaking. *See Id.*, at 36 (“individual users of a particular category of copyrighted materials”) (“whether enforcement of the regulation should be temporarily waived with regard to particular categories of works”) (“any particular category of copyrighted materials”) (“assessment of adverse impacts on particular categories of works”), and 38 (“Only in categories as to which the Secretary finds that adverse impacts have occurred”). Because the term “category” of works

has a well-understood meaning in the copyright law, referring to the categories set forth in section 102, the conclusion is inescapable that the starting point for any definition of a “particular class” of works in this rulemaking must be one of the section 102 categories.⁶

The views of the Judiciary Committee are in accord with those expressed in the Commerce Committee Report. The House Manager’s Report uses very similar words to describe how a “class of works” is to be determined:

Deciding the scope or boundaries of a “particular class” of copyrighted works as to which the prohibition contained in section 1201(a)(1) has been shown to have had an adverse impact is an important issue to be determined during the rulemaking proceedings. The illustrative list of categories appearing in section 102 of Title 17 is only a starting point for this decision. For example, the category of “literary works” (17 USC 102(a)(1)) embraces both prose creations such as journals, periodicals or books, and computer programs of all kinds. It is exceedingly unlikely that the impact of the prohibition on circumvention of access control technologies will be the same for scientific journals as it is for computer operating systems; thus, these two categories of works, while both “literary works,” do not constitute a single “particular class” for purposes of this legislation. Even within the category of computer programs, the availability for fair use purposes of PC-based business productivity applications is unlikely to be affected by laws against circumvention of technological protection measures in the same way as the availability for those purposes of videogames distributed in formats playable only on dedicated platforms, so it is probably appropriate to recognize different “classes” here as well.

House Manager’s Report, at 7.

The House Manager’s Report continues:

At the same time, the Secretary should not draw the boundaries of “particular classes” too narrowly. For instance, the section 102 category “motion pictures and other audiovisual works” may appropriately be subdivided, for purposes of the rulemaking, into classes such as “motion pictures,” “television programs,” and other rubrics of similar breadth. However, it would be inappropriate, for example, to subdivide overly narrowly into particular genres of motion pictures, such as Westerns, comedies, or live action dramas. Singling out specific types of works by creating in the rulemaking process “particular classes” that are too narrow would be inconsistent with the intent of this bill.

Id.

⁶ The legislative history of the Copyright Act of 1976 supports the conclusion that there is a close relation between the section 102 categories and a “class” of work. The authoritative report of the House Judiciary Committee, in discussing the section 102 categories of works, used the term “class” as a synonym for “category.” See H.R. Rep. No. 94–1476, at 53 (1976).

The conclusion to be drawn from the legislative history is that the section 102 categories of works are, at the very least, the starting point for any determination of what a “particular class of work” might be. That is not to say that a “class” of works must be identical to a “category.” In fact, that usually will not be the case. A “class” of works might include works from more than one category of works; one could imagine a “class” of works consisting of certain sound recordings and musical compositions, for example. More frequently, a “class” would constitute some subset of a section 102 category, such as the Judiciary Committee’s example of “television programs.”

A rigid adherence to defining “class” solely by reference to section 102 categories or even to inherent attributes of the works themselves might lead to unjust results in light of the fact that the entire “class” must be exempted from section 1201(a)(1)’s anticircumvention provision if the required adverse impact is demonstrated. For example, if a showing had been made that users of motion pictures released on DVD’s are adversely affected in their ability to make noninfringing uses of those works, it would be unfortunate if the Librarian’s only choice were to exempt motion pictures. Limiting the class to “motion pictures distributed on DVD’s,” or more narrowly to “motion pictures distributed on DVD’s using the content scrambling system of access control” would be a more just “and permissible” classification. Such a classification would begin by reference to attributes of the works themselves, but could then be narrowed by reference to the medium on which the works are distributed, or even to the access control measures applied to them. But classifying a work solely by reference to the medium on which the work appears, or the access control measures applied to the work, seems to be beyond the scope of what “particular class of work” is intended to be. And classifying a work by reference to the type of user or use (e.g., libraries, or scholarly research) seems totally impermissible when administering a statute that requires the Librarian to create exemptions based on a “particular class of works.” If Congress had wished to provide for exemptions based on the status of the user or the nature of the use—criteria that would be very sensible—Congress could have said so clearly. The fact that the issue of noninfringing uses was before Congress and the fact that Congress clearly was seeking, in section 1201, to create exemptions that would permit noninfringing uses, make it clear that

⁵ A leading treatise draws the following conclusion from this language:

It would seem, therefore, that the language should be applied to discrete subgroups. If users of physics textbooks or listeners to Baroque concerti, for example, find themselves constricted in the new Internet environment, then some relief will lie. If, on the other hand, the only unifying feature shared by numerous disgruntled users is that each is having trouble accessing copyrighted works, albeit of different genres, then no relief is warranted. 1 Nimmer on Copyright § 12A.03[A][2][b] (Copyright Protection Systems Special Pamphlet).

Congress had every opportunity and motive to clarify that such uses could be ingredients of the definition of "class" if that was what Congress intended. Yet the fact that Congress selected language in the statute and legislative history that avoided suggesting that classes of works could be defined by reference to users or uses is strong evidence that such classification was not within Congress' contemplation.

In this rulemaking, exemptions for two classes of works are recommended. The first class, "Compilations consisting of lists of websites blocked by filtering software applications," fits comfortably within the approach to classification outlined herein. The second class, "Literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence," is a somewhat less comfortable fit. It includes all literary works (a section 102 category) and specifically mentions two subclasses of literary works, but narrows the exemption by reference to attributes of the technological measures that control access to the works. Such classification probably reaches the outer limits of a permissible definition of "class" under the approach adopted herein.

B. Consultation With Assistant Secretary of Commerce for Communications and Information

As is required by section 1201(a)(1)(C), the Register has consulted with the Assistant Secretary for Communications and Information in the Department of Commerce. The Assistant Secretary is the Administrator of the National Telecommunications and Information Administration (NTIA). Discussions with the Assistant Secretary and the NTIA staff have taken place throughout this rulemaking process. In furtherance of the consultative process, on September 29, 2000, the Assistant Secretary presented a letter to the Register detailing his views. That letter has been forwarded to the Librarian. After full and thorough consideration of and discussions with the Assistant Secretary's office on these views, the Register includes the following report and comment on the Assistant Secretary's perspective in this recommendation to the Librarian.

The Assistant Secretary stated that his principal concern is to ensure that the Librarian will preserve fair use principles in this new digital age. The concerns expressed in his letter quoted from and restated many of the concerns that were presented in the House Commerce Committee Report. The

Assistant Secretary noted that the Commerce Committee was concerned that the anticircumvention prohibition of section 1201(a)(1) might have adverse consequences on fair uses of copyrighted works protected by technological protection measures, particularly by librarians and educators. He echoed the fears of the Commerce Committee that a legal framework may be developing that would "inexorably create a pay-per-use society." He stated that the "right" to prohibit circumvention should be qualified in order to maintain a balance between the interests of content creators and information users, by means of carefully drawn exemptions from the anticircumvention provision.

Since fair use, as codified in 17 U.S.C. 107, is not a defense to the cause of action created by the anticircumvention prohibition of section 1201, the Assistant Secretary urges the Register to follow the House Commerce Committee's intent to provide for exemptions analogous to fair use. He advises the Register to preserve fair use principles by crafting exemptions that are grounded in these principles in order to promote inclusion of all parts of society in the digital economy and prevent a situation in which information crucial to supporting scholarship, research, comment, criticism, news reporting, life-long learning, and other related lawful uses of copyrighted information is available only to those with the ability to pay or the expertise to negotiate advantageous licensing terms.

The Assistant Secretary expresses support for commenters in this proceeding who believed that the term "class" should not be interpreted as "coextensive" with categories of original works of authorship, as that term is used in section 102(a) of the Copyright Act. He states that since the statute and legislative history provide little guidance on the meaning of the term "class of works" and since section 1201(a)(1)(C) instructs the Librarian to examine considerations of use that are similar to fair use analysis, the classes of exempted works should be fashioned based on a factual examination of the uses to which copyrighted materials are put.

In order to craft an exemption that will preserve fair uses, he concludes that the determination of exempted classes of works should include a factual examination of the uses to which copyrighted materials are put. With this in mind, he endorses, "as a starting point, the exception proposed by the library and academic communities." In particular, he would support the

crafting of the following exemption: "Works embodied in copies that have been lawfully acquired by users or their institutions who subsequently seek to make noninfringing uses thereof."

The Register has subsequently sought and received clarification of some of the points made in the Assistant Secretary's letter. In particular, the Register has asked (1) for the Assistant Secretary's views on whether a "class of works" can be defined or determined by reference to the uses of the works in that class, rather than by reference to attributes of the works themselves, and (2) that the Assistant Secretary identify any comments or testimony in the record of this rulemaking proceeding that he believes presented any evidence that technological measures that control access to copyrighted works actually have caused or in the next three years will cause substantial adverse impacts on the ability of users to make noninfringing uses of works in the proposed class of works that he has endorsed.

With respect to how a "class of works" is to be defined or determined, NTIA responded by stating that fair use has to be a part of any discussion focusing on exemptions to the DMCA's anticircumvention prohibition, and that because the principle of fair use is grounded in a factual examination of the use to which copyrighted materials are put, it would be reasonable to include a similar examination in fashioning a class of excepted works under 1201(a)(1)(C).

In response to the request to identify comments and testimony that present evidence of substantial adverse impacts on the ability of users to make noninfringing uses of "works embodied in copies that have been lawfully acquired by users or their institutions who subsequently seek to make noninfringing uses thereof," NTIA cited one comment and the testimony of several witnesses. NTIA also questioned whether a showing of "substantial" adverse impact is required, observing that "Nowhere in section 1201(a)(1)(C) does the word 'substantial' appear" and asserting that a showing of "reasonably anticipated impacts" should be sufficient.

The views of the Assistant Secretary have been seriously considered in the preparation of these recommendations to the Librarian. Because the exemption endorsed by the Assistant Secretary (see discussion above) is not supported in this recommendation, an explanation of the reasons is in order.

At the outset of these comments on the Assistant Secretary's views, it should be understood that there is no

disagreement with the Assistant Secretary or the Commerce Committee on the need to preserve the principles of fair use and other noninfringing uses in the digital age. The Register's disagreement with the Assistant Secretary's proposals arises from the interpretation of both the statutory language of section 1201(a)(1)(C) and a review of the record in this proceeding.

First, the Assistant Secretary's proposals are based on—and necessarily require adoption of—an interpretation of the statutory phrase “particular class of copyrighted works” that the Register cannot support. As stated above in section III.A.3, a “particular class of copyrighted works” must relate primarily to attributes of the copyrighted works themselves and not to factors that are external to the works, *e.g.*, the material objects on which they are fixed or the particular technology employed on the works. Similarly, neither the language of the statute nor the legislative history provide a basis for an interpretation of an exemption of a class of works that is “use-oriented.” While the Register was required to “examine” the present or likely adverse effects on uses, and in particular noninfringing uses, that inquiry had the express goal of designating exemptions that were based on classes of copyrighted works. The only examples cited and guidance provided in the legislative history lead the Register to conclude that a class must be defined primarily by reference to attributes of the works themselves, typically based upon the categories set forth in section 102(a) or some subset thereof, *e.g.*, motion pictures or video games.

As NTIA observes, it is appropriate to examine the impact of access control measures on fair use in determining what classes of works, if any, should be subject to an exemption. But the Assistant Secretary has not explained how a “class of works” can be defined or determined without any reference whatsoever to attributes of the works themselves, and solely by reference to the status of the persons who acquire copies of those works. While fair use is relevant in determining what classes should be exempted, its relevance relates to the inquiry whether users of a particular class of works (as defined above, in section III.A.3.) are adversely affected in their ability to make noninfringing uses (such as fair use) of works in that class.

The specific exemption endorsed by the Assistant Secretary, and the reasons why that exemption cannot be adopted, are discussed below. See section III.E.9. Those reasons will not be repeated at length here. As already noted, the

proposal does not constitute a “particular class of copyrighted work” as required by the statute. Moreover, the record does not reveal that there have been adverse effects on noninfringing uses that such an exemption would remedy. Finally, this approach would, in effect, revive a version of section 1201(a)(1) focusing on persons who have gained initial lawful access that was initially enacted by the House of Representatives but ultimately rejected by Congress.

NTIA's observation that the word “substantial” does not appear in section 1201(a)(1)(C) does not require the conclusion, suggested by NTIA, that a showing of substantial harm is not required. As noted above (section III.A.2) the House Manager's Report states that the focus of this rulemaking should be on whether the prohibition on circumvention of technological protection measures has had a substantial adverse impact on the ability of users to make non-infringing uses. Although the Commerce Committee Report does not use the word substantial, its direction to make exemptions based upon “distinct, verifiable, and measurable impacts, and * * * not * * * upon *de minimis* impacts” requires a similar showing. Moreover, while NTIA asserts that an exemption may be made based on a finding of “likely adverse effects” or “reasonably anticipated impacts,” it appears that a similar showing of substantial likelihood is required with respect to such future harm. See section III.A.2 above. “Likely”—the term used in section 1201 to describe the showing of future harm that must be made—means “probable,” “in all probability,” or “having a better chance of existing or occurring than not.” Black's Law Dictionary 638 (Abridged 6th ed. 1991).

The comments and testimony identified by NTIA in support of the exemption are discussed below in section III.E.9.

For the foregoing reasons, the Assistant Secretary, in supporting this exemption proposed by libraries and educators, endorses an exemption that is beyond the scope of the Librarian's authority. While the proposed exemption addresses important concerns, it is a proposal that would be more appropriately suited for legislative action rather than for the regulatory process set forth in section 1201(a)(1)(C) and (D). In the absence of clarification by Congress, a “particular class of works” cannot be interpreted so expansively.

Some of the issues raised by the Assistant Secretary are also likely to be addressed in a joint study by the

Assistant Secretary and the Register pursuant to section 104 of the DMCA. See 65 FR 35673 (June 5, 2000). It is possible that this study will result in legislative recommendations that might more appropriately resolve the issues raised by the Assistant Secretary.

C. Conclusions Regarding This Rulemaking and Summary of Recommendations

After reviewing all of the comments and the testimony of the witnesses who appeared at the hearings, the Register concludes that a case has been made for exemptions relating to two classes of works:

(1) Compilations consisting of lists of websites blocked by filtering software applications; and

(2) Literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence.

These recommendations may seem modest in light of the sweeping exemptions proposed by many commenters and witnesses, but they are based on a careful review of the record and an application of the standards governing this rulemaking procedure. While many commenters and witnesses made eloquent policy arguments in support of exemptions for certain types of works or certain uses of works, such arguments in most cases are more appropriately directed to the legislator rather than to the regulator who is operating under the constraints imposed by section 1201(a)(1).

Many of the proposed classes do not qualify for exemption because they are not true “classes of works” as described above in section III.A.3. The proposed exemptions discussed below in section III.E.2, 5, 6, 7, 8, and 9 all suffer from that frailty to varying degrees. In many cases, proponents attempted to define classes of works by reference to the intended uses to be made of the works, or the intended user. These criteria do not define a “particular class of copyrighted work.”

For almost all of the proposed classes, the proponents failed to demonstrate that there have been or are about to be adverse effects on noninfringing uses that have “distinct, verifiable, and measurable impacts.” See Commerce Comm. Report, at 37. In most cases, those proponents who presented actual examples or experiences with access control measures presented, at best, cases of “mere inconveniences, or individual cases, that do not rise to the level of a substantial adverse impact.” See House Manager's Report, at 6. As one leading proponent of exemptions

admitted, the inquiry into whether users of copyrighted works are likely to be adversely effected by the full implementation of section 1201(a)(1) is necessarily "speculative since it entails a prediction about the future." T Jaszi, 5/2/00, pp. 11–12.

It should come as no surprise that the record supports so few exemptions. The prohibition on circumventing access control measures is not yet even in effect. Witnesses who asserted the need to circumvent access control measures were unable to cite any actual cases in which they or others had circumvented access controls despite the fact that such circumvention will not be unlawful until October 28, 2000. T Neal, 5/4/00, p. 103; T Cohen, 5/4/00, pp. 100–01.⁷

The legislative history reveals that Congress anticipated that exemptions would be made only in exceptional cases. See House Manager's Report, at 8 (it is "not required to make a determination under the statute with respect to any class of copyrighted works. In any particular 3-year period, it may be determined that the conditions for the exemption do not exist. Such an outcome would reflect that the digital information marketplace is developing in the manner which is most likely to occur, with the availability of copyrighted materials for lawful uses being enhanced, not diminished, by the implementation of technological measures and the establishment of carefully targeted legal prohibitions against acts of circumvention."); Commerce Comm. Report, at 36 ("Still, the Committee is concerned that marketplace realities *may someday* dictate a different outcome, resulting in less access * * *. In this scenario, *it could be appropriate* to modify the flat prohibition against the circumvention of effective technological measures that control access to copyrighted materials * * *"; "a 'fail-safe mechanism' is required"; "This mechanism would * * * allow the enforceability of the prohibition against the act of circumvention to be *selectively* waived, for limited time periods, *if necessary* to prevent a diminution in the availability to individual users of a particular category of copyrighted materials.") (emphasis added).

The two recommended exemptions do constitute "particular classes of copyrighted works," and genuine harm to the ability to engage in noninfringing

activity has been demonstrated. These exemptions will remain in effect for three years. In the next rulemaking, they will be examined *de novo*, as will any other proposed exemption including exemptions that were rejected in this proceeding. If, in the next three years, copyright owners impose access controls in unreasonable ways that adversely affect the ability of users to engage in noninfringing uses, it is likely that the next rulemaking will result in more substantial exemptions.

Ultimately, the task in this rulemaking proceeding is to balance the benefits of technological measures that control access to copyrighted works against the harm caused to users of those works, and to determine, with respect to any particular class of works, whether an exemption is warranted because users of that class of works have suffered significant harm in their ability to engage in noninfringing uses. See House Managers Report at 7 (decision "should give appropriate weight to the deployment of such technologies in evaluating whether, on balance, the prohibition against circumvention of technological measures has caused an adverse impact on the specified categories of users of any particular class of copyrighted materials"). The four factors specified in section 1201(a)(1)(C) reflect some of the significant considerations that must be balanced: Are access control measures increasing or restricting the availability of works to the public in general? What impact are they having on the nonprofit archival, preservation, and educational activities? What impact are they having on the ability to engage in fair use? To what extent is circumvention of access controls affecting the market for and value of copyrighted works?

The information submitted in this, the first rulemaking proceeding under section 1201(a)(1), indicates that in most cases thus far the use of access control measures has sometimes enhanced the availability of copyrighted works and has rarely impeded the ability of users of particular classes of works to make noninfringing uses. With the exception of the two classes recommended for exemption, the balance of all relevant considerations favors permitting the prohibition against circumvention to go into effect as scheduled.

Licensing

Many of the complaints aired in this rulemaking actually related primarily to licensing practices rather than technological measures that control access to works. Some witnesses expressed concerns about overly restrictive licenses, unwieldy licensing

terms, restrictions against use by unauthorized users, undesirable terms and prices, and other licensing restrictions enforced by technological protection measures. See, e.g., T Gasaway, 5/18/00; T Coyle, 5/18/00; T Weingarten, 5/19/00. One of these witnesses admitted that "some of the concerns today are just pure licensing concerns." T Gasaway, 5/18/00, p. 65.

It appears that in those cases, the licensees often had the choice of negotiating licenses for broader use, but did not choose to do so. See T. Clark, 5/3/00, p. 99, T Neal, 5/4/00, p. 133, T Gasaway, 5/18/00, p. 38. Commenters and witnesses who complained about licensing terms did not demonstrate that negotiating less restrictive licenses that would accommodate their needs has been or will be prohibitively expensive or burdensome. Nor has there been a showing that unserved persons not permitted to gain access under a particular license (e.g., a member of the public wishing to gain access to material at a university library when the library's license restricts access to students and faculty) could not obtain access to the restricted material in some other way or place.

It is appropriate to consider harm emanating from licensing in determining whether users of works have been adversely affected by the prohibition on circumvention in their ability to make noninfringing uses. This triennial rulemaking is to "monitor developments in the marketplace for copyrighted materials," Commerce Comm. Report, at 36, and developments in licensing practices are certainly relevant to that inquiry. If, for example, licensing practices with respect to particular classes of works make it prohibitively burdensome or expensive for users, such as libraries and educational institutions, to negotiate terms that will permit the noninfringing uses, and if the effect of such practices is to diminish unjustifiably access for lawful purposes, see Commerce Comm. Report, at 36, exemptions for such classes may be justified. If copyright owners flatly refuse to negotiate licensing terms that users need in order to engage in noninfringing uses, an exemption may be justified. But such a case has not been made in this proceeding.

Many commenters expressed concerns that, in the words of one witness, we are "on the brink of a pay-per-use universe." T Jaszi, 5/2/00, p. 70. The Assistant Secretary for Communications and Information shares that concern, observing that the Commerce Committee Report had warned against the development of a

⁷ One witness testified that "there have been times that we've had to circumvent," but on examination, it appears that the example the witness gave would not constitute circumvention of an access control measure. See T Gasaway, 5/18/00, pp. 49–50.

“legal framework that would inexorably create a ‘pay-per-use’ society.” See Commerce Comm. Report, at 26.

However, a “pay-per-use” business model may be, in the words of the House Manager’s Report, “use-facilitating.” House Manager’s Report, at 7. The Manager’s Report refers to access control technologies that are “designed to allow access during a limited time period, such as during a period of library borrowing” or that allow “a consumer to purchase a copy of a single article from an electronic database, rather than having to pay more for a subscription to a journal containing many articles the consumer does not want.” *Id.* For example, if consumers are given a choice between paying \$100 for permanent access to a work or \$2 for each individual occasion on which they access the work, many will probably find it advantageous to elect the “pay-per-use” option, which may make access to the work much more widely available than it would be in the absence of such an option. The comments and testimony of SilverPlatter Information Inc., demonstrate that the flexibility offered by such “persistent” access controls can actually enhance use. Of course, one can imagine pay-per-use scenarios that are likely to make works less widely available as well.

The record in this proceeding does not reveal that “pay-per-use” business models have, thus far, created the adverse impacts on the ability of users to make noninfringing uses of copyrighted works that would justify any exemptions from the prohibition on circumvention. If such adverse impacts occur in the future, they can be addressed in a future rulemaking proceeding.

D. The Two Exemptions

1. Compilations Consisting of Lists of Websites Blocked by Filtering Software Applications

Certain software products, often known as “filtering software” or “blocking software,” restrict users from visiting certain internet websites. These software products include compilations consisting of lists of websites to which the software will deny access. Schools, libraries, and parents may choose to use such software for the purpose of preventing juveniles’ access to pornography or other explicit or inappropriate materials on their computers. R56. At least one court that has addressed the use of such software has concluded that requiring use of the software in public libraries offends the First Amendment. See, e.g., *Mainstream*

Loudoun v. Board of Trustees of the Loudoun County Library, 24 F. Supp. 2d 552 (E.D. Va. 1998). See also Tenn. Op. Atty. Gen. No. 00–030 (2000). On the other hand, the Supreme Court has suggested that availability of such software for use by parents to prevent their children from gaining access to objectionable websites is a positive development. *Reno v. American Civil Liberties Union*, 521 U.S. 844, 876–77 (1997); *United States v. Playboy Entertainment Group, Inc.*, 120 S.Ct. 1878, 1887 (2000).

Critics charge that some filtering programs unfairly block sites that do not contain undesirable material and therefore should not be filtered. One commenter alleged that such programs have an error rate of 76%. R56 at 6. Another commenter described the “long history of errors in blocking sites,” and asserted that the software manufacturers have not responded appropriately. R26. The names of blocked websites are compiled into lists which are protected by copyright as compilations. Several commenters assert that manufacturers of filtering software encrypt the lists naming the targeted sites and that they are not made available to others, including the operators of the targeted sites themselves. R56. These commenters assert that they have no alternative but to decrypt the encrypted lists in order to learn what websites are included in those lists. Persons have already decrypted the lists for the purpose of commenting on or criticizing them. R56. One commenter cites an injunction against authors of a program decrypting the list of blocked websites. R26. See *Microsystems Software, Inc. v. Scandinavia Online AB*, No. 00–1503 (1st Cir. Sept. 27, 2000). Such acts of decryption would appear to violate 1201(a)(1) if it took effect without an exemption for these activities.

This does appear to present a problem for users who want to make noninfringing uses of such compilations, because reproduction or display of the lists for the purpose of criticizing them could constitute fair use. The interest in accessing the lists in order to critique them is demonstrated by court cases, websites devoted to the issue, and a fair number of commenters. See generally R73 (Computer Professionals for Social Responsibility); R38; PH20; and PH5 (California Association of Library Trustees and Commissioners, reverse filtering); WS Vaidhyathan. There is uncontroverted evidence in this record that the lists are not available elsewhere. No evidence has been presented that there is not a problem with respect to lists of websites blocked by filtering software, or that

permitting circumvention of technological measures that control access to such lists would have a negative impact on any of the factors set forth in section 1201(A)(1)(C). The commenters assert that there is no other legitimate way to obtain access to this information. No one else on the record has asserted otherwise.

A review of the factors listed in 1201(a)(1)(C) supports the creation of this exemption. Although one can speculate that the availability of technological protection measures that deny access to the lists of blocked websites might be of benefit to the proprietors of filtering software, and might even increase the willingness of those proprietors to make the software available for use by the public, no commenters or witnesses came forward to make such an assertion. No information was presented relating to the use of either the filtering software or the lists of blocked websites for nonprofit archival, preservation and educational purposes. Nor was any information presented relating to whether the circumvention of technological measures preventing access to the lists has had an impact on the market for or value of filtering software or the compilations of objectionable websites contained therein. However, a persuasive case was made that the existence of access control measures has had an adverse effect on criticism and comment, and most likely news reporting, and that the prohibition on circumvention of access control measures will have an adverse effect.

Thus, it appears that the prohibition on circumvention of technological measures that control access to these lists of blocked sites will cause an adverse effect on noninfringing users since persons who wish to criticize and comment on them cannot ascertain which sites are contained in the lists unless they circumvent. The case has been made for an exemption for compilations consisting of lists of websites blocked by filtering software applications.

2. Literary Works, Including Computer Programs and Databases, Protected by Access Control Mechanisms That Fail to Permit Access Because of Malfunction, Damage or Obsolescence

This designation of class of works is intended to exempt users of software, databases and other literary works in digital formats who are prevented from accessing such works because the access control protections are not functioning in the way that they were intended. In the course of this rulemaking

proceeding, a number of users, and in particular consumers of software and users of compilations, expressed concerns about works which they could not access even though they were authorized users, due to the failure of access control mechanisms to function properly.

Substantial evidence was presented on this issue, in particular relating to the use of "dongles," hardware locks attached to a computer that interact with software programs to prevent unauthorized access to that software. C199. One commenter attached numerous letters and news articles to his submission and testimony, documenting the experience of users whose dongles become damaged or malfunction. It appears that in such instances, the vendors of the software may be nonresponsive to requests to replace or repair the dongle, or may require the user to purchase either a new dongle or an entirely new software package, usually at a substantial cost. In some cases, the vendors have gone out of business, and the user has had no recourse for repair or replacement of the dongle.

Libraries and educational institutions also stated that they have experienced instances where materials they obtained were protected by access controls that subsequently malfunctioned, and they could not obtain timely relief from the copyright owner. R34, R75 (National Library of Medicine), R111 (National Agricultural Library). Similarly, libraries stated that there have been instances where material has been protected by technological access protections that are obsolete or no longer supported by the copyright owner. *Id.*

No evidence has been presented to contradict the evidence of problems with malfunctioning, damaged or obsolete technological measures. Nor has evidence been presented that the marketplace is likely to correct this problem in the next three years.

This appears to be a genuine problem that the market has not adequately addressed, either because companies go out of business or because they have insufficient incentive to support access controls on their products at some point after the initial sale or license. In cases where legitimate users are unable to access works because of damaged, malfunctioning or obsolete access controls, the access controls are not furthering the purpose of protecting the work from unauthorized users. Rather, they are preventing authorized users from getting the access to which they are entitled. This prevents them from making the noninfringing uses they

could otherwise make. This situation is particularly troubling in the context of libraries and educational institutions, who may be prevented from engaging in noninfringing uses of archiving and preservation of works protected by access controls that are obsolete or malfunctioning. In effect, it puts such users in a position where they cannot obtain access; nor, under 1201(a)(1), would they be permitted to circumvent the access controls to make non-infringing uses of the work unless they fall within an exemption.

Not only does such a result have an adverse impact on noninfringing uses, but it also does not serve the interests of copyright owners that 1201(a)(1) was meant to protect. In almost all cases where this exemption will apply, the copyright owner will already have been compensated for access to the work. It is only when the access controls malfunction that the exemption will come into effect. This does not cause significant harm to the copyright owner. Moreover, authorized users of such works are unlikely to circumvent the access controls unless they have first sought but failed to receive assistance from the copyright owner, since circumvention is likely to be more difficult and time-consuming than obtaining assistance from a copyright owner who is responsive to the needs of customers. Only as a fallback will most users attempt to circumvent the access controls themselves.

Although it might be tempting to describe this class as "works protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence," that would not appear to be a legitimate class under section 1201 because it would be defined only by reference to the technological measures that are applied to the works, and not by reference to any intrinsic qualities of the works themselves. See the discussion of "works" above in section III.A.3. The evidence in this rulemaking of malfunctioning, damaged or obsolete technological protection measures has related to software (dongles) and, in the cases raised by representatives of libraries, to compilations of literary works and databases. Therefore, this class of works is defined primarily in terms of such literary works, and secondarily by reference to the faulty technological protection measures.

Although this exemption fits within the parameters of the term "class of works" as described by Congress, it probably reaches the limits of those parameters. The definition of the class does start with a section 102 category of works—literary works. It then narrows

that definition by reference to attributes of access controls that sometimes protect those works—i.e., the failure of those access controls to function as intended. But in reality, this exemption addresses a problem that could be experienced by users in accessing all classes of copyrighted works. This subject matter is probably more suitable for a legislative exemption, and the Register recommends that Congress consider amending section 1201 to provide a statutory exemption for all works, regardless of what class of work is involved, that are protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence. Meanwhile, because genuine harm has been demonstrated in this rulemaking proceeding and because it is possible to define a class of works that fits within the framework of section 1201(a)(1)(B), (C) and (D), the Register recommends that the Librarian exempt this class of works during the first three years in which section 1201(a)(1) is in effect. But the fact that sufficient harm has been found to justify this exemption for this three-year period will not automatically justify a similar exemption in the next triennial rulemaking. In fact, if there were a showing in the next rulemaking proceeding that faulty access controls create adverse impacts on noninfringing uses of all categories of works, such a showing could, paradoxically, result in the conclusion that the problem is not one that can be resolved pursuant to section 1201(a)(1)(C) and (D), which anticipates exemptions only for "a particular class of works." A legislative resolution of this problem is preferable to a repetition of the somewhat ill-fitting regulatory approach adopted herein.

The class of works covers literary works—and is applicable in particular to computer programs, databases and other compilations—protected by access controls that fail to permit access because of damage, malfunction or obsolescence. The terms "damage" and "malfunction" are fairly self-explanatory, and would apply to any situation in which the access control mechanism does not function in the way in which it was intended to function. For definition of the term "obsolete," it is instructive to look to section 108(c), which also addresses the issue of obsolescence. For the purposes of section 108, "a format shall be considered obsolete if the machine or device necessary to render perceptible a work stored in that format is no longer manufactured or is no longer reasonably available in the commercial marketplace." In the context of this

rulemaking, an access control should be considered obsolete in analogous circumstances.

An exemption for this class, however, would not cover several other types of problems that commenters presented. For example, a commenter describing the problems experienced by users of damaged or malfunctioning dongles noted that similar problems occur when dongles become lost or are stolen. C199. That is, vendors of the software are often reluctant to replace the dongle, or insist that the user purchase a new dongle at a high cost. While this may be a problem, exempting works in this situation could unfairly prejudice the interests of copyright owners, who have no way of ascertaining whether the dongle was in fact lost or stolen, or whether it has been passed on to another user along with an unauthorized copy of the software, while the original user obtains a replacement by claiming the original dongle was lost. This exemption also would not cover situations such as those described by certain libraries, who expressed the fear that they would be prevented by 1201(a)(1) from reformatting materials that are in obsolete formats. If the materials did not contain access control protections, but were merely in an obsolete format, 1201(a)(1) would not be implicated. To the extent that technological protections prevented the library from converting the format, those protections would seem to be copy controls, the act of circumvention of which is not prohibited by section 1201.

The factors listed in 1201(a)(1)(C) support the creation of this exemption. In cases such as those described above, access controls actually decrease the availability of works for any use, since works that were intended to be available become unavailable due to damage, malfunction or obsolescence. This decrease in availability is felt particularly by the library and educational communities, who have been prevented from making non-infringing uses, including archiving and preservation, by malfunctioning or obsolete access controls. Circumvention of access controls in these instances should not have a significant effect on the market for or value of the works, since copyright owners typically will already have been compensated for the use of the work.

E. Other Exemptions Considered, But Not Recommended

A number of other proposed exemptions were considered, but for the reasons set forth below the Register does

not recommend that any of them be adopted.

1. "Thin Copyright" Works

Many commenters have urged the exemption of a class of works consisting of what they term "thin copyright works." These are works consisting primarily (but not entirely) of matter unprotected by copyright, such as U.S. government works or works whose term of copyright protection has expired, or works for which copyright protection is "thin," such as factual works. As one proponent, the Association of American Universities, described the class, it includes "works such as scholarly journals, databases, maps, and newspapers [which] are primarily valuable for the information they contain, information that is not protected by copyright under Section 102(b) of the Copyright Act." C161. Most often this argument is made in the context of databases that contain a significant amount of uncopyrightable material. These databases may nonetheless be covered by copyright protection by virtue of the selection, coordination and arrangement of the materials. They may also incorporate copyrightable works or elements, such as a search engine, headnotes, explanatory texts or other contributions that represent original, creative authorship. While this proposal is frequently made with reference to databases, it is not limited to them, and would apply to any works that contain a mixture of copyrightable and uncopyrightable elements.

Proponents of such an exemption make two related arguments. First, some commenters argue that using Section 1201(a)(1) to prohibit circumvention of access controls on works that are primarily factual, or in the public domain, bootstraps protection for material that otherwise would be outside the scope of protection. It would, in effect, create legal protection for even the uncopyrightable elements of the database, and go beyond the scope of what Section 1201(a)(1) was meant to cover. An exemption for these kinds of works, proponents argue, is necessary to preserve an essential element of the copyright balance "that copyright does not protect facts, U.S. government works, or other works in the public domain. Without such an exemption, users will be legally prevented from circumventing access controls to, and subsequently making noninfringing uses of, material unprotected by copyright."

A related worry of commenters is that, in practice, section 1201(a)(1) will be used to "lock up" works unprotected by

copyright. They predict that compilers of factual databases will have an incentive to impose a thin veneer of copyright on a database, by adding, for example, some graphics or an introduction, and thus take unfair advantage of the protection afforded by Section 1201. In addition, they fear that access to works such as databases, encyclopedias, and statistical reports, which are a mainstay of the educational and library communities, will become increasingly and prohibitively expensive.

On the record developed in this proceeding, the need for such an exemption has not been demonstrated. First, although proponents argue that 1201(a)(1)(A) bootstraps protection for uncopyrightable elements in copyrightable databases, the copyrightable elements in databases and compilations usually create significant added value. Indeed, in most cases the uncopyrightable material is available elsewhere in "raw" form, but it is the inclusion of that material in a copyrightable database that renders it easier to use. Search engines, headnotes, selection, and arrangement, far from being a thin addition to the database, are often precisely the elements that database users utilize, and which make the database the preferred means to access and use the uncopyrightable material it contains. Because it is the utility of those added features that most users wish to access, it is appropriate to protect them under Section 1201(a)(1)(A). Moreover, all copyrightable works are likely to contain some uncopyrightable elements, factual or otherwise. This does not undermine their protection under copyright or under 1201(a)(1)(A).⁸

Second, the fear that 1201(a)(1)(A) will disadvantage users by "locking up" uncopyrightable material, while understandable, does not seem to be borne out in the record of this proceeding. Commenters have not provided evidence that uncopyrightable material is becoming more expensive or difficult to access since the enactment of Section 1201, nor have they shown that works of minimal copyright authorship

⁸ One commenter suggested an exemption for "compilations and other works that incorporate works in the public domain, unless the compilation or work was marked in such a way as to allow identification of public domain elements and separate circumvention of the technological measures that controlled access to those elements." PH4 (Ginsburg). While this approach could address some of the concerns raised by proponents, it is unclear whether it would be technologically feasible for copyright owners to implement. Furthermore, as discussed below, the Register has not yet been presented with evidence that there have been or are likely to be adverse impacts in this area.

are being attached to otherwise unprotectible material to take advantage of the 1201 prohibitions. The examples presented in this rulemaking proceeding of databases that mix copyrightable and uncopyrightable elements seem to be operating in a way that minimizes the impact on noninfringing uses, such as the LEXIS/NEXIS database and databases produced by a witness in the Washington DC hearings, SilverPlatter Information Inc. These databases provide business models that allow users to pay for different levels of access, and to choose different payment schedules depending on the way they would like to use the database. Finally, although the fear that material will be "locked up" is most compelling with respect to works that are the "sole source" of uncopyrightable material, most of the uncopyrightable material in these databases can be found elsewhere, albeit not with the access and use-enhancing features provided by the copyrightable contributions. Where users can reasonably find these materials in other places, their fears that it will be "locked up" are unwarranted.

In applying the four factors in Section (a)(1)(C), the impact of access control technologies on the availability of works in general, and their impact on the library and educational communities in particular, must be evaluated. In general, it appears that the advent of access control protections has increased the availability of databases and compilations. Access controls provide an increased incentive for database producers to create and maintain databases. Often, the most valuable commodity of a database producer is access to the database itself. If a database producer could not control access, it would be difficult to profit from exploitation of the database. Fewer databases would be created, resulting in diminished availability for use. If there were evidence that technological access protections made access to these works prohibitively expensive or burdensome, it would weigh against increased availability. However, as discussed above, such evidence has not been presented in this proceeding. Nor has there been a showing of any significant adverse impact thus far on nonprofit archival, preservation and educational activities or on criticism, comment, news reporting, teaching, scholarship or research. There is no evidence that the use of technological measures that control access to "thin copyright" works has made those works less accessible for such purposes than they were prior to the introduction of such measures. Finally, in assessing the effect of

circumvention on the market for or value of the works, it appears likely that if circumvention were permitted, the ability of database producers to protect their investment would be seriously undermined and the market would be harmed.

2. Sole Source Works

A number of commenters proposed an exemption for a class of "sole source works," that is, works that are available from a single source, which makes the works available only in a form protected by access controls.⁹ C162 (American Library Association et al.); C213; C234. Proponents fear that works will increasingly become available only in digital form, which will be subject to access controls that prohibit users who want to make noninfringing uses from accessing the work, either because access will be too costly or will be refused. In such cases, where there is no other way to get access to the work, all noninfringing uses of the work will be adversely impacted.

Again, it is questionable whether proponents of an exemption have identified a genuine "class" of works. The only thing the works in this proposed class have in common is that each is available from a single source. Moreover, the case has not been made for an exemption for this proposed class.

Commenters submitted different examples of works that were available only in digital form. These included a number of databases and indexes. C162 (ALA). In addition, several commenters noted that digital versions of works, such as motion pictures in DVD format, often contain material, such as interviews, film clips or search engines, not found in the analog versions of the same works. C162, C234.¹⁰

The concerns of proponents of this type of exemption are understandable. However, there has been no evidence submitted in this rulemaking that access to works available only in a secured format is being denied or has become prohibitively difficult. Even considering the examples presented by various commenters, they merely establish that there are works that exist only in digital form. They have not established that access controls on those works have adversely impacted their ability to make noninfringing uses, or, indeed, that access controls impede their use of

those works at all. In the case of databases and indexes, the Register heard no evidence that licenses to those works were not available or were available only on unreasonable and burdensome terms. For example, in the case of motion pictures on DVDs, anyone with the proper equipment can access (view) the work. If there were evidence that technological access controls were being used to lock up material in such a way that there was effectively no means for a user wanting to make a noninfringing use to get access, it could have a substantial adverse impact on users.¹¹ No such evidence has been presented in this proceeding. If such evidence is presented in a subsequent proceeding, the case for an exemption may be made.

With respect to this proposed class, little evidence has been presented relating to any of the factors set forth in Section 1201(a)(1)(C). However, a review of those factors confirms that no exemption is justified in this case. If, as the proponents of this exemption assert, there are works that are available only in digital form and only with access control protections, many if not most of those works presumably would not have been made available at all if access control measures had not been available. Indeed, it appears that many of the "sole source" works identified by the American Library Association are works that most likely did not exist in the predigital era. See C162, p. 24. As with "thin copyright" works, no showing has been made of an adverse impact on the purposes set forth in 1201(a)(1)(C)(ii) and (iii).

3. Audiovisual Works on Digital Versatile Discs (DVDs)

More comments and testimony were submitted on the subject of motion pictures on digital versatile discs (DVDs) and the technological measures employed on DVDs, primarily Content Scrambling System ("CSS"), than on any other subject in this rulemaking. DVDs are digital media, similar to compact discs but with greater capacity, on which motion pictures and other audiovisual and other works may be stored. DVDs have recently become a

⁹ This subject has been discussed briefly above, in reference to databases that contain uncopyrightable material not available elsewhere. This section, however, refers mainly to copyrightable sole source works.

¹⁰ The DVD issue is addressed below, Section III.E.3.

¹¹ Nonetheless, that evidence would have to be balanced against an author's right to grant access to a work. By definition, any unpublished creative work is almost certain to be available only from a single source—the author. Historically, there has never been a right to access an unpublished work, and the law has guarded an author's right to control first publication. Even when material has already been published, there is no absolute right of access. Even with nondigital formats, one must either purchase a copy of the work or go to someone who has purchased a copy (e.g., a library) in order to obtain access to it.

major medium, although not yet the predominant medium, for the distribution of motion pictures in the "home video" market. CSS is an encryption system used on most commercially distributed DVDs of motion pictures. DVDs with CSS may be viewed only on equipment licensed by the DVD Copy Control Association (DVD CCA). PH25. The terms of the DVD CCA license permits licensed devices to decrypt and play—but not to copy—the films. For a more complete discussion of DVDs and CSS, see *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp.2d 294 (S.D.N.Y. 2000), 55 U.S.P.Q.2d 1873 (S.D.N.Y. 2000).

Proponents of an exemption for motion pictures on DVDs raised four general arguments. First, they asserted that CSS represents a merger of access and use controls,¹² such that one of those two control functions of the technology cannot be circumvented without also circumventing the other. PH11. Since Congress prohibited only the conduct of circumventing access measures and declined to enact a comparable prohibition against circumvention of measures that protect the rights of the copyright owner under § 1201(b), they argued that a merger of controls exceeds the scope of the congressional grant. In this view, the merger of access and use controls would effectively bootstrap the legal prohibition against circumvention of access controls to include copy controls and thereby prevents a user from making otherwise noninfringing uses of lawfully acquired copies, such as excerpting parts of the material on a DVD for a film class, which might be a fair use.

While this is a significant concern, there are a number of considerations to be balanced. From the comments and testimony presented, it is clear that, at present, most works available in DVD format are also available in analog format (VHS tape) as well. R123, T Marks, 5/19/00, p. 301. When distributed in analog formats—formats in which distribution is likely to continue for the foreseeable future—these works are not protected by any technological measures controlling access. WS Sorkin, p. 5. Therefore, any harm caused by the existence of access control measures used in DVDs can be

avoided by obtaining a copy of the work in analog format. See House Manager's Report, at 7 ("in assessing the impact of the prohibition on the ability to make noninfringing uses, the Secretary should take into consideration the availability of works in the particular class in other formats that are not subject to technological protections.").¹³

Thus far, no proponents of this argument for an exemption have come forward with evidence of any substantial or concrete harm. Aside from broad concerns, there have been very few specific problems alleged. The allegations of harm raised were generally hypothetical in nature, involved relatively insignificant uses, or involved circumstances in which the noninfringing nature of the desired use was questionable (e.g., backup copies of the DVD) or unclear. T Robin Gross, 5/19/00, pp. 314–15. This failure to demonstrate actual harm in the years since the implementation of the CSS measures tends to undermine the fears of proponents of an exemption.

Similarly, in all of the comments and testimony on this issue, no explanation has been offered of the technological necessity for circumventing the access controls associated with DVDs in order to circumvent the copy controls. If the copy control aspects of CSS may be circumvented without circumventing its access controls, this is clearly not a violation of Section 1201(a)(1)(A). There was no showing that copy or use controls could not be circumvented without violating Section 1201(a)(1). In contrast, there was specific testimony that an analog output copy control on DVD players, Macrovision, could be circumvented by an individual without circumventing the CSS protection measures and without violating section 1201(a)(1). T Marks, 5/19/00, pp.345–46. It would appear that circumvention

of the Macrovision control, conduct not prohibited by any of the provisions of section 1201, would enable many of the noninfringing uses alleged to be prevented. If in a subsequent rulemaking proceeding one could show that a particular "copy" or "use" control could not in fact be circumvented on a legitimately acquired copy without also circumventing the access measure, one might meet the required burden on this issue.

The merger of technological measures that protect access and copying does not appear to have been anticipated by Congress.¹⁴ Congress did create a distinction between the conduct of circumvention of access controls and the conduct of circumvention of use controls by prohibiting the former while permitting the latter, but neither the language of section 1201 nor the legislative history addresses the possibility of access controls that also restrict use. It is unclear how a court might address this issue. It would be helpful if Congress were to clarify its intent, since the implementation of merged technological measures arguably would undermine Congress's decision to offer disparate treatment for access controls and use controls in section 1201.

At present, on the current record, it would be imprudent to venture too far on this issue in the absence of congressional guidance. The issue of merged access and use measures may become a significant problem. The Copyright Office intends to monitor this issue during the next three years and hopes to have the benefit of a clearer record and guidance from Congress at the time of the next rulemaking proceeding.

Another argument raised in the comments and testimony regarding DVDs is that users of Linux and other operating systems who own computers with DVD drives and who purchase legitimate copies of audiovisual works on DVDs should be able to view these works. Many Linux users have complained that they are unable to view the works on their computers because a licensed player has not yet been developed for the Linux OS platform. R56, PH11, PH3. While this situation created frustration for legitimate users,

¹² In this discussion, the term "use controls" is used as a shorthand term for technological measures that effectively protect rights of copyright owners under title 17 (e.g., copy controls)—the controls that are the subject of the prohibition against certain technologies, products, services, devices and components found in section 1201(b)(1).

¹³ Perhaps the best case for actual harm in this context was made with respect to matter that is available along with the motion picture in DVD format but not available in videotape format, such as outtakes, interviews with actors and directors, additional language features, etc. See C204, p. 4. However, this ancillary material traditionally has not been available in copies for distribution to the general public, and it appears that it is only with the advent of the DVD format that motion picture producers have been willing or able to include such material along with copies of the motion pictures themselves. Because of this and because motion picture producers are generally unwilling to release their works in DVD format unless they are protected by access control measures, it cannot be said that enforcing section 1201(a)(1) would, in the words of the Commerce Committee, result "in less access, rather than more, to copyrighted materials that are important to education, scholarship, and other socially vital endeavors." See Commerce Comm. Report, at 35. Thus, it appears that the availability of access control measures has resulted in greater availability of these materials.

¹⁴ However, CSS was already in development in 1998 when the DMCA was enacted. It cannot be presumed that the drafters of section 1201(a) were unaware of CSS. If CSS does involve a merger of access controls and copy controls, it is conceivable that the drafters of section 1201(a)(1) were aware of that. And it is quite possible that they anticipated that CSS would be a "technological measure that effectively controls access to a work."

the problem requires balancing of other considerations.

The reasonable availability of alternate operating systems (dual bootable) or dedicated players for televisions suggests that the problem is one of preference and inconvenience, and leads to the conclusion that an exemption is not warranted. T Metalitz, 5/19/00, pp. 298–99. Moreover, with the rapidly growing market of Linux users, it is commercially viable to create a player for this particular operating system. T Metalitz, 5/19/00, pp. 297–98. DVD CSS has expressed its willingness to license such players, and in fact has licensed such players. PH25. There is evidence that Linux players are currently being developed (Sigma Designs and Intervideo) and should be available in the near future. It appears likely that the market place will soon resolve this particular concern. PH123 (MPAA).

While it does not appear that Congress anticipated that persons who legitimately acquired copies of works should be denied the ability to access these works, there is no unqualified right to access works on any particular machine or device of the user's choosing. There are also commercially available options for owners of DVD ROM drives and legitimate DVD discs. Given the market alternatives, an exemption to benefit individuals who wish to play their DVDs on computers using the Linux operating system does not appear to be warranted.

It appears from the comments and testimony presented in this proceeding that the motion picture industry relied on CSS in order to make motion pictures available in digital format. R123. An exemption for motion pictures on DVDs would lead to a decreased incentive to distribute these works on this very popular new medium. It appears that technological measures on DVDs have increased the availability of audiovisual works to the general public, even though some portions of the public have been inconvenienced.

A third argument raised relating to DVDs was the asserted need to reverse engineer DVDs in order to allow them to be interoperable with other devices or operating systems. C10, C18, C221. While there has been limited judicial recognition of a right to reverse engineer for purposes of interoperability of computer programs in the video game industry, see *Sega Enterprises, Inc. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992); *Sony Computer Entertainment, Inc. v. Connectix*, 203 F.3d 596 (9th Cir. 2000), this rulemaking proceeding is not an appropriate forum in which to extend the recognition of such a right

beyond the scope recognized thus far by the courts or by Congress in section 1201(f). In section 1201 itself, Congress addressed the issue of reverse engineering with respect to computer programs that are reverse engineered for the purpose of interoperability under certain circumstances to the "extent any such acts of identification and analysis do not constitute infringement under this title." One court has rejected the applicability of section 1201(f) to reverse engineering of DVDs. *Universal City Studios, Inc. v. Reimerdes*, 82 F.Supp.2d 211, 217–18 (S.D.N.Y. 2000); see also *Universal City Studios, Inc. v. Reimerdes*, 111 F. Supp.2d 294 (S.D.N.Y. 2000), 55 U.S.P.Q.2d 1873 (S.D.N.Y. 2000). That decision is on appeal. If subsequent developments in that case or future cases lead to judicial recognition that section 1201(f) does apply to a case such as this, then presumably there would be no need to fashion an exemption pursuant to section 1201(a)(1)(C). If, as the *Reimerdes* court has held, section 1201(f) does not apply in such a situation, an agency fashioning exemptions pursuant to section 1201(a)(1)(C) should proceed with caution before creating an exemption to accommodate reverse engineering that goes beyond the scope of a related exemption enacted by Congress expressly for the purpose of reverse engineering in another subsection of the same section of the DMCA. In any event, a more compelling case must be made before an exemption for reverse engineering of DVDs could be justified pursuant to section 1201(a)(1)(C).

The final argument in support of an exemption for audiovisual works on DVDs was based on the motion picture industry's use of region coding as an access control measure. Proponents of an exemption argued that region coding prevents legitimate users from playing foreign films on DVDs which were purchased abroad on their machines that are encoded to play only DVDs with region coding for the region that includes the United States. C133, C231, C234, R92, PH11. There was also some showing that foreign releases of American and foreign motion pictures may contain content that is not available on the American releases and that circumvention may be necessary in order to access this material. T Gross, 5/19/00, p. 314.

While the use of region coding may restrict unqualified access to all movies, the comments and testimony presented on this issue did not demonstrate that this restriction rises to the level of a substantial adverse effect. The problem appears to be confined to a relatively

small number of users. The region coding also seems to result in inconvenience rather than actual or likely harm, because there are numerous options available to individuals seeking access to this foreign content (PAL converters to view foreign videotapes, limited reset of region code option on DVD players, or purchase of players set to different codes). Since the region coding of audiovisual works on DVDs serves legitimate purposes as an access control,¹⁵ and since this coding encourages the distribution and availability of digital audiovisual works, on balance, the benefit to the public exceeds the *de minimis* harm alleged at this time. If, at some time in the future, material is available only in digital format protected by region codes and the availability of alternative players is restricted, a more compelling case for an exemption might be made.

Consideration of the factors enumerated in subsection 1201(a)(1)(C) supports the conclusion that no exemption is warranted for this proposed class. The release of audiovisual works on DVDs was predicated on the ability to limit piracy through the use of technological access control measures. R123. These works are widely available in digital format and are also readily available in analog format. R123 and WS Sorkin, p. 5. The digital release of motion pictures has benefitted the public by providing better quality and enhanced features on DVDs. While Linux users represent a significant and growing segment of the population and while these users have experienced inconveniences, the market is likely to remedy this problem soon. PH25. See the discussion of the Linux players being developed by Sigma Designs and Intervideo, above. Moreover, there are commercially reasonable alternatives available to these users. R123. The restrictions on DVDs are presently offset by the overall benefit to the public resulting from digital release of audiovisual works. Therefore, at present the existence of technological measures that control access to motion pictures on DVDs has not had a significant adverse impact on the availability of those works to the public at large.

On the question of the availability for use of works for nonprofit archival, preservation, and educational purposes, there was minimal evidence presented that these uses have been or are likely to be adversely affected during the

¹⁵ Among other purposes, it prevents the marketing of DVDs of a motion picture in a region of the world where the motion picture has not yet been released in theatres, or is still being exhibited in theatres. See PH12, pp. 3–4.

ensuing three year period. As stated above, facts relating to the issue of the existence of merged access and use controls may be presented in the next triennial rulemaking proceeding to determine whether the prohibition on circumvention of access controls is being employed in such a manner that it also restricts noninfringing uses.

The impact that the prohibition on the circumvention of technological measures applied to copyrighted works has had or is likely to have on criticism, comment news reporting, teaching, scholarship, or research is uncertain. At present, the concerns expressed were speculative and the examples of the prohibition's likely adverse effects were minimal. At this time it appears likely that these concerns will be tempered by the market. If the market does not effectively resolve problems and sufficient evidence of substantial adverse effects are presented in the next triennial rulemaking proceeding, the Register will re-assess the need for an exemption.

At this time it appears clear from the evidence that the circumvention of technological protection measures would be likely to have an adverse effect on the availability of digital works on DVDs to the public. The music industry's reluctance to distribute works on DVDs as a consequence of circumvention of CSS is a specific example of the potential effect on availability: "In fact, it was the very hack of CSS that caused a delay in introduction of DVD audio into the marketplace." T Sherman, 5/3/2000, p. 18. Since the circumvention of technological access control measures will delay the availability of "use-facilitating" digital formats that will benefit the public and that are proving to be popular with the public, the promulgation of an exemption must be carefully considered after a balancing of all the foregoing considerations. At present, the evidence weighs against an exemption for audiovisual works on DVDs.

4. Video Games in Formats Playable Only on Dedicated Platforms

A number of comments and one witness at the hearings sought an exemption for video games that are playable only on proprietary players. T Hangartner, 5/17/00, p. 247, R73, R109. The arguments in support of an exemption for video games included three issues: reverse engineering of the games for interoperability to other platforms, merger of access and use controls, and region coding of the games.

The existence of video games playable on dedicated platforms is not a new phenomenon in the marketplace. The Computer Software Rental Amendments Act of 1990 expressly provides for different treatment of video games sold only for use with proprietary platforms and those licensed for use on a computer capable of reproduction, recognizing the lower risk that the former will be copied to the detriment of the copyright owner. 17 U.S.C. 109(b)(1)(B)(ii). In the few comments addressing the need for interoperability of video games, there was very little evidentiary support for this alleged need. In fact, the testimony on behalf of Bleem, Inc. demonstrated that in cases involving interoperability of video games, courts have held either that section 1201 is inapplicable or that the exemption in 1201(f) shields this activity for purposes of discovering functional elements necessary for interoperability. T Hangartner, 5/19/00, p. 250; T Russell, 5/19/00, p. 332. Since the Basic Input Output System (BIOS) in these dedicated platforms is a computer program, section 1201(f) would appear to address the problem. To the extent that an identifiable problem exists that is outside the scope of section 1201(f), and therefore potentially within the scope of this rulemaking, its existence has not been sufficiently articulated to support the recommendation for an exemption. See also the discussion of reverse engineering below in Section III.E.5.

The claim that the technological measures protecting access to video games also restrict noninfringing uses of the games also has not been supported by any verifiable evidence. For example, while the backup of such a work may be a noninfringing use, no evidence has been presented that access control measures, as distinguished from copy control measures, have caused an inability to make a backup, and the latter is the more likely cause. Nor has there been any showing that any copy or use control has been merged with an access control, such that the former cannot be circumvented without the latter.

The paucity of evidence supporting an exemption on the basis of region coding similarly precludes a recommendation for an exemption. The few comments that mentioned this issue do not rise to the level of substantial adverse affect that would warrant an exemption for video games.

The factors set forth in section 1201(a)(1)(C) do not support an exemption. There is no reason to believe that there has been any reduction in the availability of video games for use

despite the fact that video games have incorporated access controls and dedicated platforms for many years. To the extent there has been a need for interoperability, it appears that section 1201(f) will allow functional features to be determined as the courts have allowed in the past. There has been insufficient evidence presented to indicate that video games have or will become less available after § 1201(a)(1) goes into effect. There was no evidence offered that the prohibition on circumvention will adversely effect nonprofit archival, preservation, or educational uses of these works. There was also no evidence presented that the prohibition would have an adverse effect on criticism, comment, news reporting, teaching, scholarship, or research. On the other hand, there was little evidence that circumvention would have a negative impact on the market for or value of these copyrighted works, but this is of little consequence given the *de minimis* showing of any adverse impact access control measures have had on availability of the works for noninfringing uses.

5. Computer Programs and Other Digital Works for Purposes of Reverse Engineering

A number of commenters asserted that reverse engineering is a noninfringing use that should be exempted for all classes of digital works. C143, R82. As already noted, reverse engineering was also raised as a basis for an exemption in relation to audiovisual works on DVDs and video games. C221. The arguments raised in support of a reverse engineering exemption for such works are addressed above. To the extent that reverse engineering is proposed for all classes of digital works, it does not meet the criteria of a class. A "class of works" cannot be defined simply in terms of the purpose for which circumvention is desired. See the discussion above, Section III.A.3.

Moreover, to the extent that commenters seek an exemption to permit reverse engineering of computer programs, the case has not been made even if it is permissible to designate a class of "computer programs for the purpose of reverse engineering." When it enacted section 1201, Congress carved out a specific exemption for reverse engineering of computer programs, section 1201(f). That exemption permits circumvention of an access control measure in order to engage in reverse engineering of a computer program with the purpose of achieving interoperability of an independently created computer program with other

programs, under certain circumstances set forth in the statute. When Congress has specifically addressed the issue by creating a statutory exemption for reverse engineering in the same legislation that established this rulemaking process, the Librarian should proceed cautiously before, in effect, expanding the section 1201(f) statutory exemption by creating a broader exemption pursuant to section 1201(a)(1)(C).

The proponents of an exemption for reverse engineering have expressed their dissatisfaction with the limited circumstances under which section 1201(f) permits reverse engineering (C13, C30), but the case they have made is for the legislator rather than for the Librarian. If, in the next three years, there is evidence that access control measures are actually impeding noninfringing uses of works that should be permitted, that evidence can be presented in the next triennial rulemaking proceeding. Such evidence was not presented in the current proceeding.

To the extent that commenters have sought an exemption to permit reverse engineering for purposes of making digitally formatted works other than computer programs interoperable (*i.e.*, accessible on a device other than the device selected by the copyright owner), it seems likely that the work will incorporate a computer program or reside on a medium along with a computer program and that it will be the computer program that must be reverse engineered in order to make the work interoperable. In such cases, section 1201(f) would appear to resolve the issue. To the extent that reverse engineering of something other than a computer program may be necessary, proponents of a reverse engineering exemption would be asking the Librarian to do what no court has ever done: to find that reverse engineering of something other than a computer program constitutes fair use or some other noninfringing use. It is conceivable that the courts may address that issue one day, but it is not appropriate to address that issue of first impression in this rulemaking proceeding without the benefit of judicial or statutory guidance.

The factors set forth in section 1201(a)(1)(C) have already been discussed in the context of audiovisual works on DVDs and video games, the two specific classes of works for which a reverse engineering exemption has been sought. Those factors do not support an exemption for reverse engineering.

6. Encryption Research Purposes

A number of commenters urged that a broader encryption research exemption is needed than is contained in section 1201(g). *See, e.g.*, C185, C30, R55, R70. Dissatisfaction was expressed with the restrictiveness of the requirement to attempt to secure the copyright owner's permission before circumventing. C153. *See* 17 U.S.C. 1201(g)(2)(C). Most of the references to statutory deficiencies regarding encryption research, however, merely state that the provisions are too narrow. *See, e.g.*, PH20.

As with reverse engineering, proponents of an exemption for encryption research are asking the Librarian to give them a broader exemption than Congress was willing to enact. But they have not carried their burden of demonstrating that the limitations of section 1201(g) have prevented them or are likely in the next three years to prevent them from engaging in noninfringing uses. With respect to encryption research, the DMCA required the Copyright Office and the National Telecommunications and Information Administration of the Department of Commerce to submit a joint report to Congress on the effect the exemption in section 1201(g) has had on encryption research and the development of encryption technology, the adequacy and effectiveness of technological measures designed to protect copyrighted works; and protection of copyright owners against the unauthorized access to their encrypted copyrighted works. The Copyright Office and NTIA submitted that report in May, 2000. Report to Congress: Joint Study of Section 1201(g) of The Digital Millennium Copyright Act (posted at http://www.loc.gov/copyright/reports/studies/dmca_report.html and <http://www.ntia.doc.gov/reports/dmca>). In that report, NTIA and the Copyright Office concluded that "[o]f the 13 comments received in response to the Copyright Office's and NTIA's solicitation, not one identified a current, discernable impact on encryption research and the development of encryption technology; the adequacy and effectiveness of technological protection for copyrighted works; or protection of copyright owners against the unauthorized access to their encrypted copyrighted works, engendered by Section 1201(g)." That conclusion is equally applicable to the comments on encryption research submitted in this proceeding.

Moreover, an exemption for encryption research is not focused on a

class of works. *See* discussion above, Section III.A.3.

7. "Fair Use" Works

A large number of commenters urged the Register to recommend an exemption to circumvent access control measures for fair use purposes. Responding to the statutory requirement of designating a "particular classes of works," the Higher Education Associations (the Association of American Universities, the National Association of State Universities and Land Grant Colleges, and the American Council on Education) put forth within a broad class of "fair use works" the specific classes that are most likely to be used by libraries and educational institutions for purposes of fair use. PH24. The classes are scientific and social databases, textbooks, scholarly journals, academic monographs and treatises, law reports and educational audio/visual works. A witness testifying on behalf of the Higher Education Associations explained that these works should be exempted where the purpose of using the works is fair use. T Gasaway, 5/18/00, p. 74. The Higher Education Associations also suggested that the exemption could be further limited to specific classes of persons who were likely to be fair users. PH24, at 12.

To the extent that proponents of such an exemption seek to limit its applicability to certain classes of users or uses, or to certain purposes, such limitations are beyond the scope of this rulemaking. It is the Librarian's task to determine whether to exempt any "particular class of works." 17 U.S.C. 1201(a)(1)(B), (C) (emphasis added). *See* the discussion above, Section III.A.3.

The merits of an exemption for scientific and social databases have already been discussed to some extent in the treatment of "thin copyright" works and sole source works. To the extent that these works are not in these previously addressed classes, even though scientific and social databases can be seen to present an appropriate class, the case for an exemption has not been presented. No evidence was submitted that specific works in these named classes have been or are likely to be inaccessible because educational institutions or libraries have been prevented from circumventing them. Although the proponents of this exemption allege that if they are prevented from circumventing these particular classes of works, they and those they represent will not be able to exercise fair use as to this class of works, they have not demonstrated that

they have been unable to engage in such uses because of access control measures.

Many of the concerns raised by proponents of such an exemption are actually related to copy control measures rather than access control measures. *See, e.g.*, R75 (National Library of Medicine). If a library or higher education institution has access to a work, section 1201 does not prevent the conduct of circumventing technological measures that prevent the copying of the work.

Although textbooks, scholarly journals, academic monographs and treatises, law reports and educational audiovisual works have been mentioned as candidates for this proposed class of "fair use" works, proponents have failed to demonstrate how technological measures that control access to such works are preventing noninfringing uses or will in the next three years prevent such uses. In fact, it is not even clear whether technological measures that control access are actually used with respect to some of these types of works, *e.g.*, textbooks. While it is easy to agree that if access control measures were creating serious difficulties in making lawful uses of these works, an exemption would be justified, the case has not been made that this is a problem or is about to be a problem.

Application of the factors set forth in section 1201(a)(1)(C) to this proposed class of works is identical to the analysis of those factors with respect to "thin copyright" works discussed above (Section III.E.1) and will not be repeated here.

8. Material that Cannot be Archived or Preserved

A number of library associations expressed concern about the general impact of the prohibition against circumvention on the future of archiving and preservation. *See, e.g.*, C175, R75, R80, C162, p.26–29, 31–32; R83, p. 2–4; PH18, p.5. To some extent, these concerns may be addressed in the second of the two recommended exemptions, to the degree that faulty or obsolete access control measures may be preventing libraries and others from gaining authorized access to works in order to archive them. But more generally, libraries expressed concerns that digital works for which there are no established non-digital alternatives may not be archived. C162, p.26–29.

Because materials that libraries and others desire to archive or preserve cut across all classes of works, these works do not constitute a particular class.¹⁶

See the discussion above, Section III.A.3. The Office is limited to recommending only particular classes, and then only when it has been established that actual harm has occurred, or that harm will likely occur. Such a showing of adverse effect on all materials that may need to be archived or preserved has not been made. Demonstration of the inability to archive or preserve materials tied to a more particular class of works would be needed to establish an adverse effect in this rulemaking. Application of the relevant factors cannot take place in gross, without reference to a specified class of works.

Even if such materials were to constitute a particular class, and harm were shown, adverse causes other than circumvention must be discounted in balancing the relevant factors. House Manager's Report, at 6. The libraries and Higher Education Associations provided examples of problems due to numerous other factors—licensing restrictions, cost, lack of technological storage space, and uncertainty whether publishers will preserve their own materials. These are adverse effects caused by something other than the prohibition on circumvention of access control measures.

The Higher Education Associations cite the frequent phenomenon of "disappearing" works—those appearing online or on disk today that may be gone tomorrow, *e.g.*, because they may be removed from an online database or because the library or institution has access to them only during the term of its license to use the work. *See* T Gasaway, 5/18/00, p. 38. This rulemaking proceeding cannot force copyright owners to archive their own works. Moreover, assuming that libraries and other institutions are unable to engage in such archiving themselves today, they have not explained how technological measures that control access to those works are preventing them from doing so. Rather, it would appear that restrictions on copying are more likely to be responsible for the problem. *See* R75 (National Library of Medicine's inability to preserve Online Journal of Current Clinical Trials and videotapes, apparently because of restrictions on copying); C162, pp. 25–29 (American Library Association *et al.*). Section 1201

of the Library of Congress addressed the class of audiovisual works when it stated that, to carry out their mission, they may need to circumvent access controls to preserve these materials for the long term. However, they did not state that they have thus far had such a need or that they are aware of circumstances likely to require them to engage in such circumvention in the next three years.

does not prohibit libraries and archives from the conduct of circumventing copy controls. Therefore, it is difficult to understand how an exemption from the prohibition on circumvention of access controls would resolve this problem.

Some commenters have also complained that licensing terms have required them to return CD-ROMs to vendors in order to obtain updated versions, thereby losing the ability to retain the exchanged CD-ROM as an archival copy. *See, e.g.*, C162, p. 27. But they have failed to explain how technological measures that control access to the works on the CD-ROMs play any role in their inability to archive something that they have returned to the vendor.¹⁷ In a future rulemaking proceeding, libraries and archives may be able to identify particular classes of works that they are unable to archive or preserve because of access control measures, and thereby establish the requisite harm.

Because this proposed exemption does not really address a particular class of works, application of the factors set forth in section 1201(a)(1)(C) is difficult. If particular classes of works were in danger of disappearing due to access control measures, then presumably all of the factors (with the possible exception of the factor relating to the effect of circumvention on the market for or value of the copyrighted works) would favor such an exemption. But the current record does not support an exemption.

9. Works Embodied in Copies Which Have Been Lawfully Acquired by Users Who Subsequently Seek to Make Non-infringing Uses Thereof

An exemption for "works embodied in copies which have been lawfully acquired by users who subsequently seek to make non-infringing uses thereof" was put forward by Peter Jaszi, a witness representing the Digital Future Coalition, and was subsequently endorsed by many members of the academic and library communities. T Peter Jaszi, 5/3/00; T Julie Cohen, 5/4/00, PH22, T Diana Vogel song, 5/3/00. In addition, it was endorsed by the comments of the Assistant Secretary of Commerce for Communications and Information. *See* discussion above, Section III.B. Similar exemptions were independently proposed by other commenters. PH24 (AAU); PH18 (ALA), PH21. These proposed exemptions focus on allowing circumvention by users for

¹⁶ The National Digital Library and the Motion Picture Broadcasting and Recorded Sound Division

¹⁷ A related issue, CD-ROMs with faulty access controls that erroneously exclude authorized users from access, is addressed in the second exemption recommended by the Register.

noninfringing purposes after they have gained initial lawful access, although the Association of American Universities' proposal would limit the ability to circumvent after the period of lawful access to users possessing a physical copy of the work.

The proponents for this exemption fear that pay-per-use business models (using what are sometimes called "persistent access controls") will be used to lock up works, forcing payment for each time the work is accessed. In addition, they fear that persistent access controls will be used to constrain the ability of users, subsequent to initial access, to make uses that would otherwise be permissible, including fair uses. Without this exemption, they assert, the traditional balance of copyright would be upset, tipping it drastically in favor of the copyright owners and making it more difficult and/or expensive for users to engage in uses that are permitted today.

Therefore, these commenters propose an exemption for a class of "works embodied in copies which have been lawfully acquired by users who subsequently seek to make non-infringing uses thereof." In substance, the proposal would exempt all users who wish to make noninfringing uses, regardless of the type of work, provided that they either lawfully acquire a copy or, in some versions of the proposal, lawfully acquire access privileges. This exemption, commenters argue, will equitably maintain the copyright balance. It would allow copyright owners to control the distribution of, and initial authorization of access to, copies of their works, while allowing users to circumvent those access controls for noninfringing uses after they have lawfully accessed or acquired them.

However, for several reasons, the "class" they propose is not within the scope of this rulemaking. First, none of the proposals adequately define a "class" of the type this rulemaking allows the Librarian to exempt. As discussed above in Section III.A.3, "a particular class of work" must be determined primarily by reference to qualities of the work itself. It cannot be defined by reference to the class of users or uses of the work, as these proposals suggest. Second, although the commenters have persuasively articulated their fears about how these business models will develop and affect their ability to engage in noninfringing uses, they have not made the case that these fears are now being realized, or that they are likely to be realized in the next three years.

The Assistant Secretary for Communications and Information has endorsed this proposed exemption. In support of this proposal, NTIA made only general references to one comment, RC113, and to the testimony of Julie Cohen, Siva Vaidyanathan, Sarah Wiant, James Neal, Frederick Weingarten, and the Consortiums of College and University Media Centers (CCUMC). NTIA did not specifically identify what evidence these witnesses and commenters had provided, apart from noting that they provided "numerous examples regarding the manner in which persistent access controls restrict the flow of information" and testimony about "impediments to archiving and preservation of digital works, teaching, and digital divide concerns." The latter concern is addressed in Section III.E.8.

The one comment cited by NTIA related to medical records that are stored in proprietary formats. RC113. It does not appear from that single comment—the only comment or testimony submitted on the issue—that the problem identified by the commenter related to technological measures that control access to copyrighted works. The commenter raised legitimate concerns about difficulties in converting data from one format to another. One can speculate that in the future, access control measures might be applied to medical data and prevent health care workers from obtaining needed access, but the commenter did not make the case that this is happening or is likely to happen in the next three years.

The testimony cited by NTIA relating to access controls that restrict the flow of information raised many fears and concerns but minimal distinct, verifiable, or measurable impacts. Of course, it is a tautology that any measure that controls access to a work will, by definition, at least to some degree restrict the flow of the information in the work. But although many of the witnesses complained about "persistent access controls," they did not present specific examples of any evidence of present or likely nontrivial adverse effects causally related to such controls.¹⁸ The testimony relating to noninfringing uses that could be adversely affected has not been specifically shown to be caused by access controls as opposed to other

¹⁸ In fact, one of those witnesses admitted that "the law has caused little harm yet" and that "my fears are speculative and alarmist." T Vaidyanathan, 5/18/00, p. 11. Another of the witnesses admitted that librarians have not yet experienced the "persistent access controls" feared by proponents of this exemption. T Neal, 5/4/00, p. 42.

technological or licensing measures. There appears to be no support in the record for a finding that the cited testimony rises to the level of distinct, verifiable and measurable impacts justifying an exemption at this time.

Finally, the proposed exemption parallels elements of an approach that was considered, and ultimately rejected, by Congress during the drafting of the law. The version of the DMCA that was passed by the House of Representatives on August 4, 1998, contained a provision that required a rulemaking proceeding that would determine classes of works for which, *inter alia*, users "who have gained lawful initial access to a copyrighted work" would be adversely affected in their ability to make noninfringing uses. HR 2281 EH, Section 1201(a)(1)(B):

The prohibition contained in subparagraph (A) shall not apply to persons with respect to a copyrighted work which is in a particular class of works and to which such persons have gained initial lawful access, if such persons are, or are likely to be in the succeeding 3-year period, adversely affected by virtue of such prohibition in their ability to make noninfringing uses of that particular class of works under this title, as determined under subparagraph (C)."

See also section 1201(a)(1)(D).

Thus, when it first passed the DMCA the House of Representatives appears to have agreed with much of the approach taken by the proponents of this exemption. But the fact that Congress ultimately rejected this approach when it enacted the DMCA and, instead, deleted the provision that had limited the applicability of the exemptions to persons who have gained initial lawful access, is clear indication that the Librarian does not have the power to fashion a class of works based upon such a limitation. Such an exemption is more properly a subject of legislation, rather than of a rulemaking the object of which is to determine what classes of works are to be exempted from the prohibition on circumvention of access controls.

10. Exemption for Public Broadcasting Entities

The Public Broadcasting Service, National Public Radio, and the Association of America's Public Television Stations described the public broadcasting entities' need to use sound recordings, published musical works and published pictorial, graphic and sculptural works in accordance with exemptions and statutory licenses under section 114(b) and 118(d) of the Copyright Act. R106. They observe that if copyright owners encrypted these classes of works, they would not be able

to make noninfringing uses of them pursuant to the statute. But their submission addressed potential adverse effects of the prohibition on circumvention, not current or even likely adverse effects. There has been no allegation that public broadcasters have encountered or are about to encounter technological protection measures that prevent them from exercising their rights pursuant to sections 114 and 118.

If public broadcasting entities were able to demonstrate such adverse impact, a strong case might be made for an exemption for sound recordings, published musical works and published pictorial, graphic and sculptural works. In part for that very reason, public broadcasters may not experience serious adverse impacts on their ability to use such works pursuant to the compulsory licenses, because copyright owners will have every incentive to facilitate those permitted uses. Indeed, the public broadcasters stated that they "believe that the developing methods of technological protection will be deployed "to support new ways of disseminating copyrighted materials to users, and to safeguard the availability of "works to the public." *Id.*

In any event, there is no need at present for an exemption to accommodate the needs of public broadcasters.

IV. Conclusion

Pursuant to the mandate of 17 U.S.C. 1201 (b) and having considered the evidence in the record, the contentions of the parties, and the statutory objectives, the Register of Copyrights recommends that the Librarian of Congress publish two classes of copyrighted works where the Register has found that noninfringing uses by users of such copyrighted works are, or are likely to be, adversely affected, and the prohibition found in 17 U.S.C. 1201 (a) should not apply to such users with respect to such class of work for the ensuing 3-year period. The classes of work so identified are:

1. Compilations consisting of lists of websites blocked by filtering software applications; and
2. Literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence.

The Register notes that any exemption of classes of copyrighted works published by the Librarian will be effective only until October 28, 2003. Before that period expires, the Register will initiate a new rulemaking to consider de novo what classes of copyrighted works, if any, should be exempt from § 1201(a)(1)(A) commencing October 28, 2003.

Marybeth Peters,
Register of Copyrights.

Determination of the Librarian of Congress

Having duly considered and accepted the recommendation of the Register of Copyrights concerning what classes of copyrighted works should be exempt from 17 U.S.C. 1201(a)(1)(A), 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 two 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) for the period from October 28, 2000 to October 28, 2003. The classes are:

1. Compilations consisting of lists of websites blocked by filtering software applications; and
2. Literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence.

List of Subjects in 37 CFR Part 201

Copyright, Exemptions to prohibition against circumvention.

For the reasons set forth in the preamble, the Library amends 37 CFR part 201 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. A new § 201.40 is added to read as follows:

§ 201.40 Exemption to prohibition against circumvention.

(a) *General.* This section prescribes the classes of copyrighted works for which the Librarian of Congress has determined, pursuant to 17 U.S.C. 1201(a)(1)(C) and (D), that noninfringing uses by persons who are users of such works are, or are likely to be, adversely affected. The prohibition against circumvention of technological measures that control access to copyrighted works set forth in 17 U.S.C. 1201(a)(1)(A) shall not apply to such users of the prescribed classes of copyrighted works.

(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 two classes of copyrighted works 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) for the period from October 28, 2000 to October 28, 2003. The exempted classes of works are:

- (1) Compilations consisting of lists of websites blocked by filtering software applications; and
- (2) Literary works, including computer programs and databases, protected by access control mechanisms that fail to permit access because of malfunction, damage or obsolescence.

Dated: October 23, 2000.

James H. Billington,

The Librarian of Congress

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