



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Telecommunications and**  
**Information Administration**  
Washington, D.C. 20230

October 1, 2021

Ms. Shira Perlmutter  
Register of Copyrights and Director, U.S. Copyright Office  
Library of Congress  
James Madison Memorial Building  
Washington, DC 20540–3120

Re: Exemptions to Permit Circumvention of Access Controls on Copyrighted Works,  
Docket No. 2020–11

Dear Ms. Perlmutter:

As Acting Assistant Secretary of Commerce for Communications and Information and Acting Administrator of the National Telecommunications and Information Administration (NTIA), I am pleased to submit our views on proposed exemptions from the Digital Millennium Copyright Act’s (DMCA’s) prohibition against circumvention, as required by Title 17, Section 1201(a)(1)(C) of the United States Code.<sup>1</sup> NTIA appreciates the opportunity to once again, as contemplated by Congress,<sup>2</sup> contribute its subject matter expertise to the record in this proceeding. NTIA is charged with promoting “the benefits of technological development in the United States for all users of telecommunications and information facilities,”<sup>3</sup> and serves “as the President’s principal advisor on telecommunications policies pertaining to the Nation’s economic and technological advancement . . . .”<sup>4</sup>

While our staffs have made immense efforts in each of the eight triennial rulemakings that have taken place to date, I want to recognize at the outset the extraordinary challenges your team has overcome during the current proceeding, which has been conducted entirely against the

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<sup>1</sup> 17 U.S.C. § 1201(a)(1)(C) sets forth the required consultative process, which is that “during each succeeding 3-year period, the Librarian of Congress, upon the recommendation of the Register of Copyrights, who shall consult with the Assistant Secretary for Communications and Information of the Department of Commerce and report and comment on his or her views in making such recommendation, shall make the determination in a rulemaking proceeding. . . .”

<sup>2</sup> *See, e.g.*, H.R. Rep. No. 105–551, pt. 2, at 23 (July 22, 1998) (noting NTIA’s “expertise in the area of telecommunications and information services and technologies”); 144 Cong. Rec. E2136–02 (Oct. 12, 1998) (in which the Chair of the House Commerce Committee “consider[ed] it vital for the Register to consult closely” with NTIA).

<sup>3</sup> 47 U.S.C. § 901(c)(1).

<sup>4</sup> 47 U.S.C. § 902(b)(2)(D).

backdrop of the COVID-19 pandemic. Despite the hardships and uncertainties of these times, your staff has conducted this rulemaking with its usual high standard of professionalism, and has facilitated a thorough and accessible process. As we will detail in our recommendations, we especially welcomed the introduction of remote participation in hearings during the rulemaking, and hope this very successful measure—while clearly instituted out of necessity for this particular rulemaking—will continue to be an option in the future.

As in prior triennial rulemakings, NTIA has prepared for you our detailed recommendations on each of the proposed exemptions, rooted in our subject matter expertise and with the statutory requirements in mind. We have organized our comments around the proposed classes defined in the Notice of Proposed Rulemaking.<sup>5</sup> The enclosed document also includes some broader observations about the process and substance of the Eighth Triennial Section 1201 Rulemaking, as well as some important recommendations for further building on the successful reforms the Copyright Office has implemented in prior triennial rulemakings.

We appreciate the opportunity to express our views on the important questions raised in this rulemaking. Past exemptions recommended by your office have helped to enable educators, artists, technicians, persons with disabilities, and many others to innovate and engage in the creative process by making noninfringing use of copyrighted works. We look forward to continuing to work with you to facilitate these important outcomes.

Should you have any questions regarding our recommendations, please do not hesitate to contact me or Marsha MacBride, Acting Deputy Associate Administrator, NTIA Office of Policy Analysis and Development. Thank you again for your consideration of NTIA's views on this important matter.

Sincerely,



Evelyn L. Remaley

Enclosure

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<sup>5</sup> *Exemptions to Permit Circumvention of Access Controls on Copyrighted Works, Notice of Proposed Rulemaking (2020 NPRM)*, Docket No. 2020–11, 85 Fed. Reg. 65293 (Oct. 15, 2020) (to be codified at 37 C.F.R. 201), <https://www.govinfo.gov/content/pkg/FR-2020-10-15/pdf/2020-22893.pdf>.

# **Eighth Triennial Section 1201 Rulemaking**

Recommendations of the  
National Telecommunications and Information Administration  
to the Register of Copyrights

## Table of Contents

I. Broad Observations .....	1
Rulemaking Process Reforms .....	1
Regulatory Language Improvements .....	2
Exemption Policy Considerations .....	4
II. Renewal of Existing Exemptions .....	6
III. Proposed, Additional, and Expanded Exemptions .....	7
Class 1 – Audiovisual Works – Criticism and Comment .....	7
New Users.....	7
Online Educators .....	9
College and University Employees .....	13
Language Changes.....	18
Full Length .....	20
Class 2 – Audiovisual Works – Texting.....	27
Class 3 – Audiovisual Works – Accessibility .....	28
Class 4 – Audiovisual Works – Livestream Recording .....	34
Class 5 - Audiovisual Works - Preservation .....	36
Class 6 – Audiovisual Works – Space-Shifting .....	47
Class 7 – Class 7(a) (Motion Pictures – Text and Data Mining) and 7(b) (Literary Works – Text and Data Mining) .....	48
Class 8 – Audiovisual Works – Accessibility (e-books).....	59
Class 9 – Literary Works – Medical Device Data.....	61
Class 10 – Computer Programs – Unlocking .....	67
Class 11 – Computer Programs – Jailbreaking .....	70
Class 12 – Computer Programs – Repair .....	74
Class 13 – Computer Programs – Security Research.....	84
Class 14 – Class 14(a) (Computer Programs – Preservation) and 14(b) (Video Games – Preservation).....	111
Class 15 – Computer Programs – 3D Printing .....	125
Class 16 – Computer Programs – Copyright License Investigation .....	130
Class 17 – All Works – Accessibility Uses.....	134

Pursuant to the consultative process set out in Title 17, Section 1201(a)(1)(C) of the United States Code, the Acting Assistant Secretary for Communications and Information in the Department of Commerce, and Acting Administrator of the National Telecommunications and Information Administration (NTIA), respectfully submits the following recommendations in response to the Notice of Proposed Rulemaking (NPRM) issued by the Copyright Office.<sup>1</sup>

## **I. Broad Observations**

Prior to our discussion of specific proposed exemptions, NTIA offers three general observations related to the Eighth Triennial Section 1201 Rulemaking.

### **Rulemaking Process Reforms**

NTIA strongly supports the Copyright Office’s ongoing efforts to improve the Section 1201 rulemaking process, which have continued unabated with each subsequent triennial rulemaking. Some of the most important improvements have included instituting the streamlined renewal process, soliciting three rounds of comments with each comment directed at one particular proposed exemption, and posting online video tutorials to educate interested parties about the rulemaking process.

During the current rulemaking, in light of the COVID-19 pandemic, the Copyright Office for the first time conducted hearings remotely, enabling parties to make their voices heard without needing to travel to hearings in either Washington, D.C. or Los Angeles. While this measure was necessary to ensure the safety of all participants, NTIA found the virtual format to be highly successful. Participants were able to engage with Copyright Office and NTIA staff and participate in highly productive discussions that helped to build out the record—much as they could in person in previous rulemakings. Moreover, by enabling parties to participate remotely, the Copyright Office made the hearings more accessible to those who do not live near one of the usual hearing sites and may have been unable to afford the expense or time necessary to travel. We think the positive experience with remote participation during the Eighth Triennial Rulemaking suggests that, consistent with NTIA’s recommendation three years ago, the Copyright Office should continue to make remote participation in hearings an option going forward.<sup>2</sup>

Separately, in its NPRM, the Copyright Office addresses eight comments submitted during the streamlined exemption renewal process that “raised discrete concerns with specific petitions, [though] none opposed the verbatim readoption of an existing regulatory exemption.”<sup>3</sup> In responding to these comments, the Office rightfully explains that “to the extent a commenter

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<sup>1</sup> *Exemptions to Permit Circumvention of Access Controls on Copyrighted Works*, Docket No. 2020–11, Notice of Proposed Rulemaking (2020 NPRM), 85 Fed. Reg. 65293 (Oct. 15, 2020) (to be codified at 37 C.F.R. 201), <https://www.govinfo.gov/content/pkg/FR-2020-10-15/pdf/2020-22893.pdf>.

<sup>2</sup> *Seventh Triennial Section 1201 Rulemaking, Recommendations of the National Telecommunications and Information Administration to the Register of Copyrights* (2018 NTIA Letter), Docket No. 2017-10, at 2, [https://www.ntia.doc.gov/files/ntia/publications/ntia\\_dmca\\_consultation\\_09252018.pdf](https://www.ntia.doc.gov/files/ntia/publications/ntia_dmca_consultation_09252018.pdf).

<sup>3</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65295.

questions whether there is a continued need for a specific exempted use or otherwise believes that the scope of an exemption should be narrowed, that commenter should come forward and oppose the exemption.”<sup>4</sup> NTIA strongly supports the streamlined renewal process as it is currently constructed. The purpose of this vital reform is to ease the burden on parties where there is general agreement that the facts that led to initially grant the exemption have not meaningfully changed in the last three years. Should the Office consider future tweaks to this process, we urge continued adherence to this principle, and resistance to any calls to increase the difficulty of petitioning for streamlined renewal of an existing exemption.<sup>5</sup>

### **Regulatory Language Improvements**

While continuing to build on its success in improving the process of the Section 1201 rulemaking, NTIA recommends that the Copyright Office also consider ways to make the resulting regulatory text more accessible by potential exemption users and more conducive to clear discussion and debate in future rulemakings. In 2018, we urged the Office and the Librarian “to consider adopting a more structured format for each individual exemption” on the theory that “such an approach would likely improve readability, and might make it easier to manage requests to expand or modify existing exemptions in future rulemaking cycles.”<sup>6</sup> In the Eighth Triennial Rulemaking, some parties have suggested implementing this recommendation in their comments, and even submitted proposed exemption text in such a format.<sup>7</sup> NTIA continues to believe that implementing a structured format for exemption text would be highly beneficial to advocates, exemption users, and even the Copyright Office itself.

There are many possible variations on a structured format for exemptions that would benefit users. Yet NTIA contemplates such a format would break out each exemption into three essential parts, including 1) the class of work at issue; 2) a description of the covered users who

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<sup>4</sup> *Id.*

<sup>5</sup> For example, the Office states that it “may consider whether to include a mechanism for petitioners to disclaim types of uses or other aspects of an exemption if they believe only partial renewal is appropriate.” *Id.* While it may be advantageous for all parties involved to be able to focus any opposition to presumptive renewal on particular aspects of an exemption, NTIA believes that even partial opposition should include evidence of substantive changes in circumstance, law, or other facts in order to trigger the requirement to build a new evidentiary record during the main part of the rulemaking.

<sup>6</sup> 2018 NTIA Letter, at 4.

<sup>7</sup> See, e.g., Class 13 Initial Comments of J. Alex Halderman, Center for Democracy & Technology, and U.S. Technology Policy Committee of the Association for Computing Machinery (Halderman Class 13 Initial Comments), Docket No. 2020-11, at 6–7, [https://www.copyright.gov/1201/2021/comments/Class%2013\\_InitialComments\\_J.%20Alex%20Halderman,%20Center%20for%20Democracy%20&%20Technology,%20and%20U.S.%20Technology%20Policy%20Committee%20of%20the%20Association%20for%20Computing%20Machinery.pdf](https://www.copyright.gov/1201/2021/comments/Class%2013_InitialComments_J.%20Alex%20Halderman,%20Center%20for%20Democracy%20&%20Technology,%20and%20U.S.%20Technology%20Policy%20Committee%20of%20the%20Association%20for%20Computing%20Machinery.pdf); Class 8 Initial Comments of American Council of the Blind, American Foundation for the Blind, National Federation of the Blind, Association for Education and Rehabilitation of the Blind and Visually Impaired, Library Copyright Alliance, Benetech/Bookshare, HathiTrust, and Perkins Braille & Talking Book Library (Accessibility Petitioners II Class 8 Initial Comments), Docket No. 2020-11, at 10, [https://www.copyright.gov/1201/2021/comments/Class%2008\\_InitialComments\\_Accessibility%20Petitioners%20II.pdf](https://www.copyright.gov/1201/2021/comments/Class%2008_InitialComments_Accessibility%20Petitioners%20II.pdf).

may circumvent access controls on the class of work (if narrower than all users of the class of work); and 3) the covered purposes allowed by the exemption (if narrower than all noninfringing uses). Without respect to the exact format, a move to standardize the text of exemptions would have two main advantages. First, a structured format has the potential to make the regulatory text easier for exemption users to parse and apply in their own work. The record in this proceeding includes examples of parties reporting substantial confusion over the scope of noninfringing activities covered by existing exemptions, and even discussion over the extent to which exemption users should obtain legal counsel prior to engaging in circumvention.<sup>8</sup> NTIA strongly believes that the text of granted exemptions should be as accessible as possible by the full spectrum of potential users, including artists, librarians, teachers, mechanics, and anyone else interested in making noninfringing use of a copyrighted work protected by an access control. While there may always be complex situations in which it is prudent to seek the advice of an attorney, the Copyright Office and the Librarian should seek to make those situations as rare as possible through the use of plain language and clear structure in exemption text.

Second, NTIA believes that implementing a standardized structure would ease the burden on parties and help to better focus debate around any future modifications to existing exemptions. In this proceeding, the records for some proposed classes have included very specific discussions of particular words to add or remove from an exemption.<sup>9</sup> Others, however, have revolved primarily around higher-level concepts.<sup>10</sup> This leaves the Copyright Office to reconcile any proposals it accepts with existing exemption text that has been recommended for renewal in the streamlined process. A structured format could prompt more focus on the addition, removal, or modification of particular words in existing regulatory text, encouraging parties to engage on specific proposals for altering the scope of the class of works, covered users of such works, and/or enabled purposes. This would help to ensure discussions on the record remain relevant to the statutory task of determining which “users of a copyrighted work which is

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<sup>8</sup> See, e.g., Transcript, Hearing on Exemptions to the Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Section 1201 – Digital Millennium Copyright Act, Remarks of J. Alex Halderman, at 441–443, Blake Reid, at 455–456, and J. Matthew Williams, at 461–462 (April 8, 2021) (April 8 Hearing Transcript), <https://www.copyright.gov/1201/2021/hearing-transcripts/210408-Section-1201-Public-Hearing-Class-13-9-Audience-Participation.pdf>.

<sup>9</sup> The record around potential modifications to the security research exemption, known as Class 13 in the Eighth Triennial Rulemaking, has largely focused on whether to remove a number of different restrictive clauses or even individual words. See, e.g., Class 13 Petition of J. Alex Halderman, Center for Democracy & Technology, and U.S. Technology Policy Committee of the Association for Computing Machinery (Halderman Class 13 Petition), Docket No. 2020-11, at 3, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20J.%20Alex%20Halderman%20et%20al.pdf>.

<sup>10</sup> Parts of proposed Class 12 would expand on existing exemptions enabling repair, with specific language proposals varying significantly across proponents (including some who provide detailed evidence and analysis but do not propose specific regulatory text). See, e.g., Class 12 Initial Comments of Electronic Frontier Foundation (EFF Class 12 Initial Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_Electronic%20Frontier%20Foundation.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_Electronic%20Frontier%20Foundation.pdf).

in a particular class of works” are, or are likely to be, “adversely affected by virtue of” the prohibition against circumvention.<sup>11</sup>

### **Exemption Policy Considerations**

The COVID-19 pandemic required many Americans to adapt quickly to changing conditions for work, school, and other facets of daily life. At a time when it’s not always possible or advisable to gather in libraries, studios, classrooms, and other settings, adverse effects from the prohibition against circumvention are, perhaps more than ever, on full display. Participants in this rulemaking have noted the barriers faced by educators attempting to make use of motion pictures in virtual classrooms,<sup>12</sup> researchers who require access to rare or fragile works undergoing preservation,<sup>13</sup> and even individuals trying to save money by using third party ink cartridges when printing documents at home.<sup>14</sup> In order to maximize the relief to Americans attempting to engage in these and other noninfringing activities, NTIA urges the Copyright Office and the Librarian to adopt exemptions that fully address the adverse impacts of the prohibition against circumvention without introducing unnecessary restrictions on these users.

NTIA has discussed some of these restrictions during previous rulemakings, and our views remain generally unchanged. For example, we continue to believe the most “practical and efficient way to ensure that consumers are adequately protected from any harm caused by the prohibition against circumvention is to avoid unnecessarily constraining exempted classes based on the specific types of devices on which works are contained.”<sup>15</sup> Rather than continuing to add to ever-growing lists of specific types of computers and media that quickly become outdated, the Copyright Office should focus squarely on classes of work and their users. In addition to minimizing the use of different types of media or devices to narrow exemptions, NTIA notes that the Eighth Triennial Rulemaking has highlighted the need to avoid conditioning exemptions on a particular type of access control. For example, in arguing to remove the phrase “microchip-reliant” that describes applicable access controls in the current exemption for 3D printing, one proponent expresses concern that a potential shift towards the use of optical sensors to verify the manufacturer of printer materials could make it unclear whether the current exemption covers

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<sup>11</sup> 17 U.S.C. § 1201(a)(1)(B).

<sup>12</sup> Class 1 Initial Comments of Brigham Young University (BYU Class 1 Initial Comments), Docket No. 2020-11, at 25, [https://www.copyright.gov/1201/2021/comments/Class%2001\\_InitialComments\\_Brigham%20Young%20University.pdf](https://www.copyright.gov/1201/2021/comments/Class%2001_InitialComments_Brigham%20Young%20University.pdf).

<sup>13</sup> Class 14 Initial Comments of Software Preservation Network and Library Copyright Alliance (SPN Class 14 Initial Comments), Docket No. 2020-11, at 13–14, [https://www.copyright.gov/1201/2021/comments/Class%2014a%20and%2014b\\_InitialComments\\_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/Class%2014a%20and%2014b_InitialComments_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf).

<sup>14</sup> EFF Class 12 Initial Comments at 28.

<sup>15</sup> *Sixth Triennial Section 1201 Rulemaking, Recommendations of the National Telecommunications and Information Administration to the Register of Copyrights* (2015 NTIA Letter), at 9, [https://www.ntia.gov/files/ntia/publications/2015\\_ntia\\_dmca\\_section\\_1201\\_consultation.pdf](https://www.ntia.gov/files/ntia/publications/2015_ntia_dmca_section_1201_consultation.pdf).

such mechanisms.<sup>16</sup> Copyright holders and the vendors they work with may update or change their access control measures on a regular basis. Such changes in access controls employed need not correspond with changes in the class of work being protected nor the noninfringing uses hindered by the prohibition against circumvention.

NTIA has also previously recommended that the Copyright Office resist calls from some parties to consider matters unrelated to copyright protection in its deliberations.<sup>17</sup> As in previous triennial rulemakings, we wish to reiterate that Section 1201 of the DMCA is not the appropriate venue to address concerns about product safety, environmental regulations, the contours of other laws, or even the desire of some companies to protect anti-competitive business models. To that end, we are encouraged by the then-Acting Register's statement in 2018 that "while the Acting Register certainly appreciates the seriousness of these [non-copyright] issues, they generally are best addressed through other legal frameworks and by agencies with expertise in those areas."<sup>18</sup> The Eighth Triennial Rulemaking includes a number of opportunities for the Office to implement this principle in its recommendations, which we will highlight as applicable in the proposed classes below.

Finally, one policy concern NTIA has not previously addressed is the challenge of identifying whether particular technologies presenting barriers to noninfringing use qualify as technological protection measures under Section 1201. While there have been a few instances in past rulemakings in which the applicability of the prohibition against circumvention was considered, we have more often observed some uncertainty around the contours of what constitutes an access control in this proceeding.<sup>19</sup> In the Eighth Triennial Rulemaking, for example, we are left wondering to what extent the optical scanner technologies used in some printers or firmware that is compressed in a non-standard fashion (but not encrypted) constitute technological measures that effectively control access to copyrighted works.<sup>20</sup> In those particular cases, other similarly situated works within each class are protected by technologies that more clearly seem to fit the statutory definition of access control, but even in those cases, it

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<sup>16</sup> Class 15 Initial Comments of Michael Weinberg (Michael Weinberg Class 15 Initial Comments), Docket No. 2020-11, at 4, [https://www.copyright.gov/1201/2021/comments/Class%2015\\_Initial%20Comments\\_Michael%20Weinberg.pdf](https://www.copyright.gov/1201/2021/comments/Class%2015_Initial%20Comments_Michael%20Weinberg.pdf).

<sup>17</sup> See, e.g., 2018 NTIA Letter, at 2–3.

<sup>18</sup> *Section 1201 Rulemaking: Seventh Triennial Proceeding to Determine Exemption to the Prohibition on Circumvention, Introduction and Recommended Regulatory Language, Introduction and Recommended Regulatory Language* (2018 DMCA Introduction) (October 2018) at 5, [https://cdn.loc.gov/copyright/1201/2018/2018\\_Section\\_1201\\_Introduction\\_and\\_Recommended\\_Regulatory\\_Language.pdf](https://cdn.loc.gov/copyright/1201/2018/2018_Section_1201_Introduction_and_Recommended_Regulatory_Language.pdf).

<sup>19</sup> For example, in 2012 NTIA analyzed the Secure Boot feature of the Unified Extensive Firmware Interface (UEFI) found on many modern PCs and found that "neither the purpose nor the function of Secure Boot is to control access to a copyrighted work." In other words, circumventing Secure Boot in order to run a non-vendor approved operating system does not constitute circumvention of an access control under Section 1201. Letter from Lawrence E. Strickling, Assistant Secretary of Communications and Information, to Maria Pallante, Register of Copyrights (September 21, 2012) at 8–9, [https://www.ntia.gov/files/ntia/publications/ntia\\_2012\\_dmca\\_letter\\_final.pdf](https://www.ntia.gov/files/ntia/publications/ntia_2012_dmca_letter_final.pdf).

<sup>20</sup> See Michael Weinberg Class 15 Initial Comments, at 4; see also EFF Class 12 Initial Comments, at 6.

is important for advocates on both sides and potential exemption users to have a clear understanding of when the prohibition against circumvention does and does not apply. Unfortunately, experience suggests that neither proponents nor opponents necessarily have an interest in exploring the distinction between access controls under the statute and other technologies that may pose a technical (but not necessarily legal) hurdle to noninfringing uses. Proponents, for example, may be focused on immunizing their constituencies from the risk of legal action to the greatest extent possible (regardless of whether they think a particular technology should be viewed as triggering Section 1201). Opponents may be hesitant to limit their clients' potential recourse by stipulating that a given technology is not an access control. In the interest of bringing clarity to those seeking to make noninfringing use of copyrighted works, it may then fall to the Copyright Office to seek more information on these issues in future rulemakings. NTIA stands ready to offer its expertise in navigating these potentially highly complex technical topics.

## **II. Renewal of Existing Exemptions**

NTIA agrees with the Register that, consistent with the terms of the streamlined exemption renewal process, the Librarian received sufficient information to renew each of the existing exemptions. Indeed the Copyright Office received thirty-two petitions to renew existing exemptions, including at least one for each of the current exemptions. While the Office received fifteen comments on these petitions, it properly found that these comments did not contain any "meaningful opposition" to such renewal.<sup>21</sup> As each current exemption received a petition for renewal and expansion, NTIA will express specific views on each class's renewal and expansion in turn below.

Additionally, NTIA notes its agreement with keeping the petitions simple and succinct and avoiding the need to prove each use for each possible user in this short renewal petition. Further, NTIA concurs that if an entity wishes to question the continued need for an exemption, under the current streamlined process, then they must explicitly oppose the exemption.<sup>22</sup> For example, the Copyright Office took this position with respect to the comments filed by the DVD CCA and AACS LA in which they do not object to the renewal of the exemption, but asked that Copyright Office correct certain deficiencies in the petitions such as excluding or changing parts of the exemption for certain groups such as K-12 schools. The Copyright Office correctly pushed these concerns aside because the DVD CCA and AACS LA expressly stated that they did not oppose renewal and therefore their concerns did not rise to the level of "meaningful opposition." To emphasize the point, the Copyright Office continued by stating that the "petitioners need not address every possible use covered by an exemption when seeking to renew an exemption, and the Office has concluded that the petition was submitted in a sufficient manner."<sup>23</sup> NTIA concurs that this is and should be the standard by which to judge requests for renewals of current exemptions.

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<sup>21</sup> 2020 NPRM.

<sup>22</sup> NTIA may voice its support for particular circumstances discussed here in discussions below.

<sup>23</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65296.

### III. Proposed, Additional, and Expanded Exemptions

#### Class 1 – Audiovisual Works – Criticism and Comment

Renewals of the current exemptions that comprise this class were unopposed and will be recommended by the Copyright Office.<sup>24</sup> NTIA supports renewal of the current exemptions.<sup>25</sup> In this proceeding, three petitions also seek to expand the existing exemptions for circumvention of access controls protecting audiovisual works contained on DVDs, Blu-ray discs and digitally transmitted (streamed) content for specific purposes related to criticism and comment or education.<sup>26</sup> The Copyright Office grouped these three petitions together as they proposed, in some cases similar changes, and in others potentially overlapping changes to parts of the larger exemption that exists today. NTIA will examine each proposed change below: user expansions, screen capture, use of full length works, and language modifications.

#### New Users

There are two proposed expansions for new groups of users for this exemption. First, Joint Educators propose to expand the short portions used for educational purposes in online learning currently limited to non-profit, accredited educational institutions to include online learning platforms that offer supplement education, upskilling, retraining, recharging, and lifelong learning regardless of their status as a for-profit or educational accreditation such as Khan Academy, LinkedIn Learning and Osmosis.org.<sup>27</sup> Second, Brigham Young University

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<sup>24</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65296.

<sup>25</sup> U.S. Copyright Office, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, Docket No. 2017-10, Final Rule, 83 Fed. Reg. 54010, 54018 (Oct. 26, 2018) (2018 Final Rule), <https://www.govinfo.gov/content/pkg/FR-2018-10-26/pdf/2018-23241.pdf>.

<sup>26</sup> Class 1 Petition for New Exemption of Brigham Young University (BYU Class 1 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Brigham%20Young%20University.pdf> (This petition is submitted by both Brigham Young University and Brigham Young University – Idaho); Class 1 Petition for New Exemption of Joint Educators (Joint Educators Class 1 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Joint%20Educators%20et%20al.pdf> (Joint Creators include the following Peter Decherney, Professor of Cinema and Media Studies and English at the University of Pennsylvania on behalf of himself and Professor Katherine Sender, Department of Communication, Cornell University; John Jackson, Professor and Dean, Annenberg School for Communication, University of Pennsylvania; Rebecca Stein, PhD, Executive Director, Online Learning Initiative, University of Pennsylvania; the International Communication Association (ICA); the Society for Cinema and Media Studies (SCMS); Console-ing Passions; the Library Copyright Alliance (LCA), Shiv Gaglani, CEO and Co-Founder, Osmosis.org; Stefan Wisbauer, Managing Director, Lecturio; Andrew Berg, MD, Co-Founder, SketchyMedical; Saud Siddiqui, MD, Co-founder, SketchyMedical; and Ken Robertson, COO, Picmonic Inc.); Class 1 Petition for New Exemption of Organization for Transformative Works, (OTW Class 1 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Organization%20for%20Transformative%20Works.pdf>.

<sup>27</sup> Class 1 Initial Comments of Joint Educators, (Joint Educators Class 1 Initial Comments), Docket No. 2020-11, at 3,

(BYU) proposes to expand the eligible users of the exemption to include college and university employees replacing the term faculty.<sup>28</sup>

As a general matter, NTIA supports expanding the users of this exemption to the groups listed in the current educational environment where so much learning has moved necessarily online during the pandemic. Proponents have provided sufficient evidence of harm for these groups to permit moving forward with these expansions and have shown that while the pandemic may be a one-time event, changes to the educational environment will continue to evolve to include a virtual or online component.<sup>29</sup> Without the exemption it is likely that innovation in online learning will be hampered. While the opposition suggests that if a major justification for modifications is the pandemic for which the effects it is hoped will diminish and not have long-lasting effects; therefore, they assert, perhaps the Office should consider a shorter term for the exemption changes based upon the pandemic, if any at all.<sup>30</sup>

In contrast, NTIA believes limiting these types of changes that may be highlighted by the pandemic to a period shorter than the current three year term is not sufficiently justified. In fact, this would be a confusing outcome to potential users when mid-cycle the exemption would revert to the current exemption language. This would limit initial investment and discourage entities from taking advantage of the exemption at all. Indeed, the length of the pandemic is still undetermined, as we have discovered since the hearings, with the rise of the Delta variant and the resurgence of new cases in August 2021. But more importantly, the pandemic simply highlighted already existing needs and gaps in the marketplace and harms that can be fixed through these changes.<sup>31</sup> These changes are needed to address problems that exist now and, as with all exemptions, will be revisited in three years.<sup>32</sup>

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[https://www.copyright.gov/1201/2021/comments/Class%2001\\_InitialComments\\_Joint%20Educators%20IV.pdf](https://www.copyright.gov/1201/2021/comments/Class%2001_InitialComments_Joint%20Educators%20IV.pdf).

<sup>28</sup> BYU Class 1 Initial Comments, at 1.

<sup>29</sup> Joint Educators Class 1 Initial Comments, at 3-4.

<sup>30</sup> See Class 1 Reply Comments of Joint Creators (Joint Creators Class 1 Reply Comments), Docket No. 2020-11, at 3-4,

[https://www.copyright.gov/1201/2021/comments/reply/Class%201\\_Reply\\_Joint%20Educators%20IV.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%201_Reply_Joint%20Educators%20IV.pdf) (providing that “the pandemic is a time-limited event that should not drive public policy changes with potentially long-lasting effects. The proposed exemption would be in effect until at least 2024. We are hopeful, based on the availability of vaccines, that widespread effects from the pandemic will reduce substantially during the next year.”). See also, Class 1 Post Hearing Letter of Joint Creators (Joint Creators Class 1 Post Hearing Letter), Docket No. 2020-11, at 2, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-1-Joint-Creators-Post-Hearing-Response.pdf>.

<sup>31</sup> See Class 1 Post Hearing Letter of University of Illinois, (University of Illinois Class 1 Letter), Docket No. 2020-11, at 1, <https://www.copyright.gov/1201/2021/post-hearing/letters/UniversityofIllinois1201Response.pdf>.

<sup>32</sup> Class 1 Reply Comments of Brigham Young University (BYU Class 1 Reply Comments), Docket No. 2020-11, at 3,

[https://www.copyright.gov/1201/2021/comments/reply/Class%201\\_Reply\\_Brigham%20Young%20University%20and%20Brigham%20Young%20University-Idaho.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%201_Reply_Brigham%20Young%20University%20and%20Brigham%20Young%20University-Idaho.pdf). This will allow all of the parties to

## Online Educators

Joint Educators are petitioning for a new group of users to have a similar exemption to the current MOOC exemption.<sup>33</sup> However, unlike the MOOC exception, this proposed group will include non-accredited for-profit online educational entities, which in the past have not been granted nor included in the MOOC or other exemptions based largely upon their for-profit or non-accredited status.<sup>34</sup> For example, the Joint Educators discuss organizations such as CSForAll, LinkedIn Learning, Osmosis.org and Musora Media. These organizations represent a variety of expertise and subjects, but are all non-accredited and for-profit educational entities.<sup>35</sup> Their proposed exemption is as follows:

To allow educators and preparers of online learning materials to use short portions of motion pictures (including television shows and videos), as defined in 17 U.S.C. 101, for the purpose of criticism, comment, illustration and explanation in offerings for registered learners on online learning platforms when use of the film and media excerpts will contribute significantly to learning.

The online provider will limit these online learning materials, to the extent technologically feasible, to registered learners of the online learning platform, institute copyright policies, and provide copyright information to educators and preparers of online learning materials, learners, and relevant staff members.

Further, the online provider, to the extent technologically feasible, will work to reasonably prevent unauthorized further dissemination of online learning materials in accessible form to others, including after the registration period ends.

**NTIA Position:** NTIA recommends granting a new expansion of this exemption to include online educators with some modifications of the proposal.

**Analysis:** The evidence presented in this round was more convincing than in previous cycles that these for-profit educators would make noninfringing uses of the works in much the same way as existing authorized users of the educational exemptions.<sup>36</sup> In fact, this group of

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revisit these changes, positive or negative in three years and make a fresh determination. As for now, the evidence strongly supports making these changes and the pandemic add to that evidence.

<sup>33</sup> In fact, the exemption will almost be identical in many elements.

<sup>34</sup> Joint Educator has raised this idea previously but was not granted an exception.

<sup>35</sup> See Joint Creators Class 1 Post Hearing Letter, at 1-2. CSforAll is unaccredited, for-profit organization dedicated to computer science education; LinkedIn Learning is also unaccredited, for-profit company with over 16,000 courses focusing business and other skills taught by industry experts; Osmosis.org also for-profit, unaccredited organization focusing medical and health education; and Musora Media is also unaccredited for-profit that focuses on music education. All provide their classes online.

<sup>36</sup> NTIA notes in particular the emphasis in the post hearing answers on particular uses of short clips in the preparation of educational materials used on their platforms that demonstrate the noninfringing uses

users will make uses identical to those already authorized to do so under other similar exceptions.<sup>37</sup> The need for this exemption has become even more important this past year as so much learning has shifted to a virtual environment as a result of the pandemic as discussed above. As such, NTIA believes that the proponents have demonstrated in this proceeding these for-profit online educational entities should be treated equally with not-for-profit educational entities.<sup>38</sup>

One important point revolves around the quality of the educational materials available. For example, one of the dilemmas highlighted is that without this exemption these for-profit entities cannot provide the quality of content that is permitted to not-for-profit educational entities.<sup>39</sup> In other words, the current exemptions themselves create disparity that this new exemption could repair. Also, and more importantly, this change will permit greater access to quality content to more learners as more and more content is accessed virtually. Thus, permitting this new group to take short clips of audio visual works with enhance learning in these online environments is exactly the same way it is currently permitted for other exemptions such as for MOOCs.<sup>40</sup>

There has been a tendency in the past to tie similar exemptions to the limitations articulated in the TEACH Act – hence the desire to retain the non-profit accredited language.<sup>41</sup> However, and as the proponents argue, the current circumstances, along with the evolution of the online educational market, have obviated the need for strict reliance on this notion. Indeed, the TEACH Act can be instructive, but this exemption process is designed to be flexible and

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intended by the entities that would be added by this proposed expansion. *See* Class 1 Post Hearing Letter of Joint Educators, (Joint Educators Class 1 Post Hearing Letter), Docket No. 2020-11, at 4-5, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-1-Joint-Educators-Post-Hearing-Response.pdf>.

<sup>37</sup> NTIA notes here that the use itself has been discussed for many cycles -- that using short portions of motion pictures or other audio visual works for educational purposes such as criticism, comment, scholarship, evaluation, study in the classroom or online are traditionally noninfringing. That analysis does not change with this cycle. The only question here is determining whether there is sufficient justification to permit this additional group to have any exception to circumvent.

<sup>38</sup> Class 1 Reply Comments of Joint Educators (Joint Educators Class 1 Reply Comments), Docket No. 2020-11, at 4, [https://www.copyright.gov/1201/2021/comments/reply/Class%201\\_Reply\\_Joint%20Educators%20IV.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%201_Reply_Joint%20Educators%20IV.pdf).

<sup>39</sup> *See, e.g.*, Joint Educators Class 1 Reply Comments, at 5.

<sup>40</sup> *Id.* The Joint Educators raise the example of a medical student needing additional study materials on a particular subject can acquire access at Osmosis.org to content that will assist her with concepts she is struggling at any time. That learning would be enhanced using clips from audio/visual works.

<sup>41</sup> *See, e.g.*, 17 U.S.C 110(2). For example, the disparity between face to face and online learning in the TEACH Act, which was enacted in 2002, a very different time and largely before the current push towards more and more online learning, need not be carried over to 1201. This includes the requiring that the educational institution allowed to take advantage of the exemption need not be nonprofit.

innovative, and therefore it need not mandate the same requirements as that statute, especially as those may be dated or irrelevant to the circumstance at hand.<sup>42</sup>

The difficulty confronted in the proceeding with adding this new group is how to craft a new exemption that is appropriately inclusive, but also protects content providers from infringement of their works.<sup>43</sup> This is in part the subject of the Copyright Office’s post hearing questions, which focused on whether the entity should be accredited.<sup>44</sup> NTIA supports the notion that this exemption should be limited to educational entities that employ educators or demonstrate that they themselves are educators that provide or develop content whether or not they are accredited or are for-profit or not-for-profit.<sup>45</sup> The definition of educators and educational entities in this context should be construed as broadly as possible.<sup>46</sup> For example, NTIA believes it would be difficult to draw the line between certain entities. But it may be sufficient that in order to qualify for this exemption that one would need to produce an education certificate from a state board or certain degree. And in order to qualify it would be helpful, but should not be required, that there the entity possess an accreditation by entities authorized or recognized by the Department of Education or other similar accrediting entity for the organization itself.<sup>47</sup> Yet NTIA believes it would be sufficient to qualify for this exemption if the entity is registered with their state or local jurisdiction as an entity, for profit or not-for-profit, with an educational purpose or mission. As such, NTIA believes that adding the limitation to the language that the use must be by an educational entity sufficiently narrows and better defines the class of users.

NTIA believes it is a matter of good public policy to grant this exemption, which favors small businesses formed to be educational entities and can allow for those that are experts in their field to develop educational materials and specialized online courses utilizing that expertise.<sup>48</sup> This would, for example, permit small businesses (that are educational entities or

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<sup>42</sup> See Joint Educators Class 1 Initial Comments, at 13.

<sup>43</sup> We note that Joint Educators have made clear that they are not seeking to modify the MOOC exemption, but to add a new class of users to the exemption. See Joint Educators Class 1 Reply Comments, at 5.

<sup>44</sup> Copyright Office Post Hearing Questions, Class 1 (Copyright Office Class 1 Post Hearing Questions), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-1-Post-Hearing-Letter-4-16-2021.pdf>.

<sup>45</sup> NTIA believes that the entities proffered by the Joint Educators would each qualify as an “educational entity.”

<sup>46</sup> See Joint Educators Class 1 Post Hearing Letter, at 6.

<sup>47</sup> See, e.g., Department of Education, Accreditation: Post-secondary Institutions, <https://www.ed.gov/accreditation>. This list contains information about accreditation, accrediting bodies and those post-secondary schools and programs that are accredited. Certainly, whether the entity is for-profit or not-for-profit and they appear on this list – they would qualify for the exemption as NTIA has contemplated to the extent it is needed for online programs.

<sup>48</sup> *Id.* at 6. We note the examples used in the Post Hearing Answers demonstrates the benefit of including experts in fields such as medicine and computer science. But also lifelong musicians could fall into this category as well. They may not have a degree in education per se, but have a lifetime of expertise that would more than qualify them to teach the course.

have an educational mission or purpose) that may only have one or a few employees and that develop and provide online educational content using short portions of motion pictures, and that establish an online platform for delivering that content to online learners as long as they meet the other requirements of the exemption to qualify for this exemption.<sup>49</sup> However, these entities would not be required to acquire an accreditation or become a non-profit, in order to take advantage of the exemption. This would be unnecessary and would not add value to the educational materials or online courses themselves. Permitting this exemption can broaden the possible number of entities that provide online learning (that use the clips from audio visual works) specifically mentioned by the Joint Educators in all of their filings and many of whom also join in this petition.<sup>50</sup> More importantly, this will provide opportunities for new small business, and new online learning opportunities.<sup>51</sup>

For this new exemption, NTIA believes the established safeguards articulated in the MOOC exemption provides good guidance. For example, the educational entity will also need to implement registration requirements of the students, use only the short clips that are created for an educational purposes including criticism and comment, illustration and explanation.<sup>52</sup> It would be appropriate then that the new exemption also retain the requirements to prevent sharing the content provided through the platform in the current exemption as well as the other technological measures that would prevent unauthorized dissemination or retention of the work. Proponents of this exemption support retaining these limitations that are a part of the MOOC exemption with some minor alterations.<sup>53</sup> NTIA believes these institutional and technological limitations continue to be appropriate to prevent infringing uses of the short clips created for this exemption.<sup>54</sup>

**NTIA Recommendation for Class 1 (Online Educators):** NTIA believes the new exemption for online educational entities should read as follows:

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<sup>49</sup> It is also possible to consider that these same small business can also develop and sell that content to other educational entities that have established online platforms.

<sup>50</sup> See e.g., Joint Educators Class 1 Post Hearing Letter, at 2. Indeed the current MOOC exemption already permits the platform to be for profit so there is some precedent. In reality the platform in the equivalent of the educational entity or online provider in this new exemption.

<sup>51</sup> NTIA is cognizant that the quality or accuracy of the educational materials themselves may be in question with this broad of a sweep of potentially authorized users. However, that is not the purpose of copyright law to police quality or accuracy of content. However, it will be incumbent upon learners to decipher the better content to purchase and to study. This is not reason enough to deny this exemption. Let the market work in this regard.

<sup>52</sup> See, e.g., Joint Educators Class 1 Initial Comments, at 12-13.

<sup>53</sup> *Id.*

<sup>54</sup> NTIA does not believe that these limitations will not create unreasonable barriers to use, but will provide adequate protection for copyrighted works thus striking the right balance here. This may limit access to the educational materials in some cases and require these educational entities to not post things a free and open platform in order to remain compliant.

(D) ~~To allow~~ By educators and preparers of online learning materials offered by educational entities to use short portions of motion pictures (including television shows and videos), as defined in 17 U.S.C. 101,<sup>55</sup> to registered learners of online learning platforms when use of the film and media excerpts will contribute significantly to learning, including for the purpose of criticism, comment, illustration and explanation,<sup>56</sup> ~~where the~~ The online provider will limit these online learning materials, to the extent technologically feasible, to registered learners of the online learning platform, institute copyright policies, and provide copyright information to educators and preparers of online learning materials, learners, and relevant staff members, and the online provider, to the extent technologically feasible, will work to reasonably prevent unauthorized further dissemination of online learning materials in accessible form to others, including after the registration period ends.

This version of the proposed exemption contains minimal changes from the original needed to strike the right balance and drawing from the existing MOOC:<sup>57</sup>

### **College and University Employees**

BYU's proposal seeks to expand the current exemption to include all university employees to be able to circumvent for educational purposes.<sup>58</sup> Currently the exemption limits the users to "college and university faculty," which would be replaced by the term "college and university employees." This minor modification would eliminate any ambiguity as to who may circumvent at the university level.<sup>59</sup> BYU asserts a primary reason for this change is that many faculty members do not possess the requisite skills or technological tools to circumvent access controls, thus rendering the current exemption largely unused.<sup>60</sup> This change will permit, for example, university IT department employees to circumvent on behalf of the faculty member that is requesting the circumvention.<sup>61</sup> This expansion received little opposition.<sup>62</sup>

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<sup>55</sup> This text will not be needed here as it covered elsewhere in the regulatory text in paragraph (1).

<sup>56</sup> For readability of the regulatory text NTIA suggests moving this phrase from earlier in the text to here. This text in red is largely the text proposed by the Joint Educators.

<sup>57</sup> We note that the language here tracks the exemption proposed by the Joint Educators with the addition of the educational entity. Further the language here is as it would appear in the regulation after the current MOOC as subsection (1)(ii)(D). *See, e.g.*, Joint Educators Initial Comments, at 16, 18.

<sup>58</sup> This modification would be paragraph (1)(ii)(A) of the current exemption only.

<sup>59</sup> *See* Transcript, Hearing on Exemptions to the Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Section 1201 – Digital Millennium Copyright Act, Remarks of Peter Midgley and Shane Stanley, at 220-222 (Apr. 6, 2021) (April 6 Hearing Transcript), <https://www.copyright.gov/1201/2021/hearing-transcripts/210406-Section-1201-Public-Hearing-Class-1.pdf>.

<sup>60</sup> BYU Class 1 Initial Comments, at 27-28.

<sup>61</sup> *Id.* at 28.

<sup>62</sup> *See* April 6 Hearing Transcript, Remarks of Regan Smith, at 221. In fact, it was noted on the record that opponents had no opposition and had viewed the current exemption to include all university employees as well as faculty.

**NTIA Position:** NTIA recommends granting the requested expansion for college and university employees with some additional modification.

**Analysis:** NTIA supports this modest expansion to provide clarity as to who might provide this service to educators within the university. NTIA concurs with BYU that this change does not alter the current analysis that finds these uses to be noninfringing and, in fact, universities are adversely impacted by not permitting all university employees to circumvent for educational purposes.<sup>63</sup>

NTIA notes that BYU did not advance a proposed change for the other educational entities here such as K-12 educators.<sup>64</sup> Currently, the same exemption includes K-12 faculty and therefore NTIA believes the modification should also be extended to K-12 employees. This would permit, for example, IT offices in K-12 school systems across the country to make these modifications on behalf of students and educators. Therefore, in NTIA’s view and to eliminate any ambiguity that a K-12 school could possibly be in violation of the DMCA, when at the request of an educator, an IT specialist bypassed an encryption so that that educator could utilize a short portion of motion picture in a classroom discussion, NTIA recommends adding the additional term “employees” after K-12 educators as demonstrated below.<sup>65</sup>

**NTIA Recommendation for Class 1 (College and University Employees):** NTIA recommends that the Librarian modify Section (1)(ii)(A) as follows:

(A) By college and university ~~faculty~~ employees and students or kindergarten through twelfth-grade (K–12) educators, employees and students (where the K–12 student is circumventing under the direct supervision of an educator), including of accredited general educational development (GED) programs, for the purpose of criticism, comment, teaching, or scholarship;

### Screen Capture

All three proponents proposed to eliminate the requirements regarding screen capture technology. For example, Joint Educators assert that screen capture is not an effective alternative to circumvention.<sup>66</sup> OTM argues that “the statutory factors do not provide the Office with reasons to determine that people entitled to an exemption must use a particular technology to do so.”<sup>67</sup> BYU also joins in argument to remove the requirement for screen capture.

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<sup>63</sup> BYU Class 1 Initial Comments, at 28.

<sup>64</sup> See, e.g., BYU Class 1 Reply Comments, at 2.

<sup>65</sup> While there was not a discussion of such a change on the record, the lack of opposition and the position the opposition took with the language should provide enough comfort to permit the Copyright Office to make this additional change.

<sup>66</sup> Joint Educators Class 1 Initial Comments, at 9.

<sup>67</sup> Class 1 Initial Comments of Organization for Transformative Works (OTW Class 1 Initial Comments), Docket No. 2020-11, at 3-4, [https://www.copyright.gov/1201/2021/comments/Class%2001\\_InitialComments\\_Organization%20for%20Transformative%20Works.pdf](https://www.copyright.gov/1201/2021/comments/Class%2001_InitialComments_Organization%20for%20Transformative%20Works.pdf).

Screen capture technologies are rarely a viable solution for educational uses for a variety of reasons: they do not provide high-quality copies; the copies made are static; metadata including closed captioning, different language subtitles and dubs are lost; and the time needed to create these copies is overly burdensome. In previous rulemakings, the Register has acknowledged many of the limitations of screen capture technologies. Even so, the current exemption still includes a reference to screen capture technology that is not only confusing, but also unnecessary and overly restrictive. The obligation to use screen capture technologies neither contributes to preventing infringing uses nor does it benefit rightsholders in any way.<sup>68</sup>

Removing this language is opposed generally by Joint Creators and DVD and AACCS.<sup>69</sup> The Joint Creators argue that proponents have not demonstrated that screen capture and “other licensed alternatives” are not effective for accomplishing many uses and even more available for education today than three years ago.<sup>70</sup> With that said however, the opposition is most concerned that other circumvention methods typically make the complete work free for copying and distribution without restriction.

**NTIA Position:** NTIA recommends granting the requested elimination of the requirement regarding screen capture.

**Analysis:** NTIA has in past supported eliminating the screen capture technology requirement and nothing presented in this proceeding persuades NTIA that we should take a different position in this proceeding.<sup>71</sup> In 2018, the Copyright Office recommended that screen capture be included as a precondition to circumvention, thus only permitting circumvention if the quality is insufficient for the needs of the user.<sup>72</sup> While this is meant to answer the largest

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<sup>68</sup> BYU Class 1 Initial Comments, at 23.

<sup>69</sup> See generally, Class 1 Opposition Comments of DVD and AACCS (DVD and AACCS Class 1 Opposition Comments), Docket No. 2020-11, at 5-6, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_1\\_Opp'n\\_DVD%20CCA%20and%20AACCS%20LA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_1_Opp'n_DVD%20CCA%20and%20AACCS%20LA.pdf).

<sup>70</sup> Joint Creators Class 1 Reply Comments, at 2. It is noteworthy here that Joint Creators are not generally opposed to rewording the exemptions as long as the current limitations are retained. Also, the evidence presented suggested that new efforts have been made to work with these users and provide services, but the proponents rebut the notion that these have in any way solved the issues at hand.

<sup>71</sup> See, e.g., NTIA 2018 Letter, at 27-28.

<sup>72</sup> As the 2018 Recommendation explained, “a requirement that users consider whether it is really necessary to engage in circumvention before doing so is consistent with the aims of the rulemaking.” U.S. Copyright Office, *Section 1201 Rulemaking: Seventh Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention, Recommendation of the Register of Copyrights* (2018 Register’s Recommendation), at 84-85 (Oct. 2018).

complaint regarding the screen capture language, NTIA believes this language is the cause of much confusion and actually adds ambiguity to the exemption.<sup>73</sup>

NTIA has observed that screen capture seldom provides the clip quality required for the users of this exemption and therefore again supports removing this language from the exemption. We note that this is the primary argument favored by the proponents for this change. In one example, proponents provide evidence of the ineffectiveness of screen capture.

So, actually, we can't find any example that we've heard in which screen capture would be effective. Screen capture creates an imperfect copy, as we've already heard. It can distort the lesson being taught. It has dropped frames. Audio and video could be out of sync. DRM can block it. Really, there's an equity argument. It doesn't even work -- it works even worse if you're an under-resourced institution with a bad computer. So, examples like "The King's Speech" where it could be used by educators to talk about someone with a speech defect, if the audio and video are out of sync, you wouldn't know if it was a technical issue or if it was part of the medical condition.<sup>74</sup>

The current language requiring the use of screen capture under Class 1 is causing confusion and is ambiguous in its current formulation. Proponents assert as a growing example of that ambiguity that many programs block the use of screen capture software, suggesting that the program considers the screen capture software as a circumvention tool.<sup>75</sup> In fact, the language requiring screen capture is unnecessary as the "person engaging in circumvention believes and has reasonable grounds for believing that circumvention is necessary to fulfill the purpose of the use."<sup>76</sup> This would include an analysis of quality of the output for that use and would cover any potential use of screen capture by vidders or educators. If the user can use screen capture -- by all means do so. If they cannot, they are not required to do so. To the extent there is a question whether screen capture is not considered as an authorized non-circumventing alternative, but in fact is a circumvention tool -- it would be authorized by this exemption in either case. In other words, the exemption gains nothing by including the language and only

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<sup>73</sup> NTIA notes that this addition to the exemption language was an answer to the convincing record before the Copyright Office in previous proceedings that screen capture software produced poor quality clips often unusable by the vidders (or others) and so to give the user an explicit choice and to keep some vestige of the screen capture requirement in place. However, in doing so, the resulting exemption has become cumbersome and confusing to potential users.

<sup>74</sup> April 6 Hearing Transcript, Remarks of Peter Decherney, at 230.

<sup>75</sup> April 6 Hearing Transcript, Remarks of Betsy Rosenblatt, at 165. It is important to note here that this uncertainty does not necessity the Copyright Office from specifically designating screen capture as an authorized technology. As written it only compounds the ambiguity and confusion. It is also inappropriate for the Copyright Office to acknowledge and even endorse one specific technology of another. A better wording, if this language were retained would be to use "authorized circumvention method or technology." Regardless, NTIA believes it is time to remove the language as the best option.

<sup>76</sup> April 6 Hearing Transcript, Remarks of Anna Chauvet, at 160.

suffers from a lack clarity by it being included. Further, eliminating the language below simplifies the exemption and makes it less ambiguous what is authorized by the exemption. The point should be that screen capture may be used but is not required. In some cases, it works to use screen capture. In other cases, it will not. The artist or educator should decide.<sup>77</sup>

The opposition's primary assertion in retaining the requirement to use screen capture software requirement is that it prevents full copies from being available without the protected encryption; the screen capture technology provides small clips from the work, but does not make the entire work available free and clear.<sup>78</sup> While this may be the case, meaning the typical circumvention eliminates the encryption permitting the unencrypted copy to be disseminated and copied, the clip produced by the screen capture software is usually unusable as has been demonstrated above and throughout this and previous proceedings. Thus, this process is to find a balance between competing needs. OTM suggests that the fear from the content community about how these users will utilize a free and clear copy is unfounded.

Neither my research nor my fandom interactions have suggested any connection between accessing complete copies of works for creative purposes and distributing "unprotected, perfect, digital, in-the-clear" copies of those works. This is not surprising: circumventing access controls and distributing files are entirely different activities, and vidders distinguish between them.<sup>79</sup>

NTIA does not lightly dismiss the caution raised by the content community. However, we believe it is now prudent to eliminate the language requiring use of screen capture. The language just prior in the current regulation still requires that the user determine whether there are non-circumventing alternatives available for their purposes. In other words, circumvention is still not the first option to the potential user, but with this formulation the Office is not picking a particular alternative technology over any others that may be authorized by the content creators.<sup>80</sup> This language properly preserves the balance and encourages the marketplace to create tools useful to both interests – preserving the rights of the content creators and allowing these users to extract short portions of the motion pictures for criticism and comment or for classroom assignments at the level of quality needed for the noninfringing use.

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<sup>77</sup> See, e.g., Class 1 Reply Comments of Organization for Transformative Works, (OTW Class 1 Reply Comments), Docket No. 2020-11, at 2, [https://www.copyright.gov/1201/2021/comments/reply/Class%201\\_Reply\\_Organization%20for%20Transformative%20Works.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%201_Reply_Organization%20for%20Transformative%20Works.pdf).

<sup>78</sup> April 6 Hearing Transcript, Remarks of J. Matthews Williams, at 166-67.

<sup>79</sup> OTW Class 1 Reply Comments, at 3.

<sup>80</sup> NTIA notes again that the Joint Creators did mention other authorized alternative tools, but the record did not discuss what these might be. NTIA believes market-based solutions and improved authorized tools are preferable as alternatives to circumvention. At this stage, however, what those market-based solutions look like is unclear (even in the case of screen capture software). See, e.g., Joint Creators Class 1 Reply Comments, at 2.

**NTIA Recommendation for Class 1 (Screen Capture):** NTIA supports eliminating the screen capture language to simplify the exemption, which will adequately preserve the balance.

(1) Motion pictures (including television shows and videos), as defined in 17 U.S.C. 101, where the motion picture is lawfully made and acquired on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, and the person engaging in circumvention under paragraph (b)(1)(i) and (b)(1)(ii)(A) and (B) of this section reasonably believes that non-circumventing alternatives are unable to produce the required level of high-quality content, ~~or the circumvention is undertaken using screen capture technology that appears to be offered to the public as enabling the reproduction of motion pictures after content has been lawfully acquired and decrypted,~~ where circumvention is undertaken solely in order to make use of short portions of the motion pictures in the following instances:

### Language Changes

BYU proposes significant language changes. First, it posits substituting the more broad terminology “noninfringing uses” for the current language referring to more educationally-focused section 107 uses: “criticism, comment, teaching or scholarship.” It also proposes to eliminate the use of the term “educational uses.”<sup>81</sup> We note that this change was also opposed by other proponents such as Joint Educators.<sup>82</sup> Both formulations could clearly qualify as the basis for an exemption, especially since the second set of terms used now are all noninfringing uses. However, BYU asserts that by limiting the exemption to these section 107 terms, the exemption limits possible educational uses of the exemption. Instead, BYU suggests incorporating by reference sections 107, 110 and 112 to define the possible noninfringing uses that a university may make. Such references will permit universities to react to future events that affect education, such as has occurred during the pandemic, and will be flexible enough to permit innovative educational uses. Further BYU suggests breaking out all educational uses into a separate exemption.<sup>83</sup>

Motion pictures (including television shows and videos), as defined in 17 U.S.C. 101, where the motion picture is lawfully made and acquired on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, where circumvention is undertaken by college and university employees or students or by kindergarten through twelfth-grade (K-12) educators or students (where the K-12 student is circumventing under the direct supervision of an

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<sup>81</sup> April 6 Hearing Transcript, Remarks of Peter Midgley, at 172-173. BYU suggested that there arises some confusion with the current formulation of exemption language when using these terms.

<sup>82</sup> April 6 Hearing Transcript, Remarks of Peter Decherney, at 173-174.

<sup>83</sup> BYU Class 1 Initial Comments, at 2-3. NTIA generally supports this notion if a level of clarity and simplicity can be achieved by such a breakout. This idea was not explored in any real detail as to what that might look like and how that change benefits the users. NTIA looks forward to more work on this idea in future rounds.

educator), including of accredited general educational development (GED) programs, for a noninfringing use under 17 U.S.C. §§ 107, 110(1), 110(2), or 112(f).

**NTIA Position:** NTIA recommends some changes to the exemption language based upon BYU's recommendation.

**Analysis:** Generally speaking NTIA supports simplifying the language to make the exemption as easy as possible for users to understand what is and what is not permitted. NTIA agrees with the sentiment that the regulatory language should be flexible in order to allow adaptation to future events and needs and to permit innovation. It is also impossible to articulate all possible noninfringing uses that are authorized or could be authorized by the exemption. Also, as has been demonstrated and discussed throughout this proceeding, the pandemic has demonstrated the need for flexibility and innovation. Further, if the language is too rigid, NTIA concurs that innovation will be stymied. NTIA also agrees that it is good policy to craft an exemption that fosters innovation in education.

While NTIA agrees with these ideals, NTIA does not concur that all of the changes suggested necessarily achieve the desired outcome. NTIA does concur with the concept of using the existing laws as a guidance for possible uses and limitation of these exemptions, as it has noted previously. Yet NTIA does not concur with eliminating the term "educational uses" from this exemption, as it is both instructive and appropriately limiting. Not all uses that are potentially noninfringing uses have been authorized as an exemption to circumvention. Indeed the statute mandates a balance be struck. Perhaps then the best language to guide university decisions would be a combination of the existing exemption and BYU's proposal.<sup>84</sup>

NTIA endorses using the existing Copyright Act sections as guidance for this educational exemption to the extent they are helpful as guidance. These sections already outline uses contemplated by Congress. However, NTIA is hesitant to suggest that the entire exemption uses be based upon these other sections. Indeed in the past referencing other sections has been a source of confusion and has suggested more than what was intended. We note that an exemption in this proceeding can and often has granted more use of the work than was contemplated in these sections (especially 110 and 112). Therefore, NTIA suggests that these sections be referenced strictly as guidance such as: educational uses authorized by this exemption may be included from those contemplated in sections 107, 110 (1), 110(2) and 112(f).<sup>85</sup> Section 110(1) and 110(2) focus on potential classroom uses of the work including performance and digital transmission of the work. But as the Joint Creators point out there are limits in 110(1) and

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<sup>84</sup> Given that all educational uses that have been permitted prior are noninfringing uses, NTIA does not oppose this change if combined with the term educational uses, as guided by sections 107, 110, and 112(f).

<sup>85</sup> 17 U.S.C. §107 outlines the traditional fair uses, which have been the subject of this exemption from the beginning. But do not request additional discussion here. These uses have been favored from the beginning and are discussed by Congress in creating this section. *See, e.g.*, H.R. Rep. No. 105-551, pt.2 at 25 – 26.

110(2) that will not permit for example virtual learning and copying.<sup>86</sup> Section 112(f) authorizes digital copies of the work in certain circumstances especially by those same entities authorized under 110(2) and allows for the conversion from analog to digital in those limited circumstances such as for face to face in class performance of the work.<sup>87</sup> These sections help pave the way for a more broad and flexible educational use exemption, but should only be used as a guide and not as a replacement for the current text.

**NTIA Recommendation for Class 1 (Language Changes):** NTIA recommends the following language for Section A of educational uses (while retaining the title educational uses):

(A) By college and university employees and students or kindergarten through twelfth grade (K–12) educators, employees and students (where the K–12 student is circumventing under the direct supervision of an educator), including of accredited general educational development (GED) programs, for the purpose of criticism, comment, teaching, or scholarship and other noninfringing uses, as guided by Sections 107, 110(1), 110(2) and 112(f);

### **Full Length**

Next, BYU proposes changing the language for educators to eliminate the “short portions” limitation for educational uses, which would essentially permit using the entire motion picture under this new exemption.<sup>88</sup> NTIA has supported prior iterations of this proposal in past cycles.<sup>89</sup> The Copyright Office has rejected this idea in the past as overly broad.<sup>90</sup> It is noted that not all proponents supported this idea and it was vigorously opposed.<sup>91</sup> Another possible formulation of this idea would be to replace short portions with the broad terminology “reasonable and limited portions” following language used in section 17 U.S.C. § 110(2).

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<sup>86</sup> Class 1 Opposition Comments of Joint Creators (Joint Creators Class 1 Opposition Comments), Docket No. 2020-11, at 5, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_2\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_2_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf) (providing that “[a]lthough Section 110(1) allows BYU to engage in certain public performances of complete motion pictures “in a classroom or similar place devoted to instruction” (emphasis added), without obtaining licenses, it does not allow those performances to be generated from unauthorized copies, nor does it contain any limitation on the reproduction right. If Congress wanted EIs [Educational Institutions] and students to be exempt from purchasing complete copies of works or authorized access thereto, it would have included an exception to the reproduction right within Section 110 – which it clearly did not”).

<sup>87</sup> NTIA notes that this is important for the discussion in the next section. It was already found to not be an infringement to change formats for this limited purposes.

<sup>88</sup> This proposed change would not be carried over for vidders and others currently authorized to use only short portions of the motion pictures that are not associated with educational uses.

<sup>89</sup> 2018 NTIA Letter at 17-23. Many of the concepts and issues addressed there are repeated in this cycle. Accordingly, our thoughts there are incorporated by reference into this recommendation.

<sup>90</sup> See, e.g., 2020 NPRM, 85 Fed. Reg. 65293, 65303.

<sup>91</sup> See, e.g., Joint Creators Class 1 Opposition Comments, at 8-10; see also DVD CCA Class 1 Opposition Comments, at 19.

**NTIA Position:** NTIA recommends granting this proposed use with some alterations.

**Analysis:** Here, BYU proposes to eliminate the short portions language to facilitate use of full-length motion pictures for educational purposes. In doing so, BYU asserts that a better use of language would be utilizing other statutory provisions, such as the TEACH Act (sections 110 and 112). The TEACH Act uses “reasonable and limited portions” rather than short portions.<sup>92</sup> BYU asserts that this change would permit both use of short portions and full length (and everything in between) as needed by the educational institution for both face to face and remote class learning.<sup>93</sup>

Essentially, BYU asks to be able to “space shift” the works from one medium to another to facilitate remote learning especially because of the need to provide remote learning as a result of the pandemic.<sup>94</sup> BYU asserts that the main purpose for this modification would be to allow the streaming of motion pictures for classroom use (whether virtual or in person) where the current marketplace does not provide for a license to do so. Educational users would be able to use DVDs in their existing collection for example, to stream to classrooms or virtually to students for educational purposes. BYU argues that universities have large investments in their motion picture collections that may be rendered useless if not for this exemption.<sup>95</sup> As in the past, BYU has reiterated that optical drives are becoming obsolete (not being included in new equipment such as computers purchased by the university) highlighting this need. But it is even more important especially in light of limitations imposed on classrooms by the pandemic.<sup>96</sup> As well, BYU provides evidence of gaps in the marketplace for digital copies and licenses for motion pictures that allow universities to use these motion pictures for remote learning or for face to face learning. Indeed, as mentioned above, the pandemic has moved more classes necessarily online. BYU provides an important example of why this exemption is needed. In the fall of 2020, the film studies class moved to virtual learning to include viewing of 12 films for the class. Although BYU owned the films on DVD, it could not play them. And, because the films were not available in the digital marketplace for BYU to purchase, other options were explored. One included requiring students to acquire or view on multiple streaming services that they would have had to purchase, which would have been cost prohibitive. Instead BYU

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<sup>92</sup>17 U.S.C. §110(2).

<sup>93</sup> BYU Class 1 Initial Comments, at 10. In 2018, NTIA noted that BYU supported well the idea of face to face class use of this proposed exemption, it did not support the remote learning part of its proposal. NTIA believes in this round that it has supported both uses. *See* 2018 NTIA Letter, at 23.

<sup>94</sup> This proposal is already authorized in a very limited fashion under 17 U.S.C. § 112(f)(2).

<sup>95</sup> BYU states it has purchased over 19,000 DVDs and 900 Blu Ray discs. *See* BYU Class 1 Initial Comments, at 20.

<sup>96</sup> Of particular note is access to university optical drives because of the pandemic as well as the needed time to quarantine all physical materials used during the pandemic. As noted above this simply proves to highlight an already existing shortfall in the marketplace with disc drives becoming obsolete to which an exemption here could help ameliorate. *See, e.g.,* BYU Class 1 Initial Comments, at 25.

adjusted its curriculum to find films it could license.<sup>97</sup> This choice does not demonstrate a viable alternative, but a market failure.<sup>98</sup>

Further, as these digital streaming services designed for universities provide some content and in those instances are used. However, BYU has demonstrated that there are gaps in availability from these services as just mentioned causing harm to education and learners.<sup>99</sup> For another example, although BYU has 16,000 films in its collection and one commercial service provides over 25,000 titles in its service, there is only an overlap of 1,000 similar works. Therefore, BYU, without the exemption would not be able to utilize 15,000 of its works for certain classroom or virtual educational purposes. This is a gap of about 90 percent; others report a gap of about 25 percent.<sup>100</sup> Equally concerning is the gap in films not offered by these services, because they are no longer produced, have limited availability, are older, or otherwise not available. Although these films may be in the university DVD or Blu-ray collection they are not available for classroom use.<sup>101</sup> At the very least, this demonstrates that streaming services are not an alternative to circumvention in all cases and have certainly not been during much of the pandemic.<sup>102</sup>

It also still remains that these licenses do not meet the needs of the universities or the students. Bulk licenses allowing for multiple viewers for educational purposes remains largely non-existent.<sup>103</sup> And negotiations to acquire licenses at reasonable prices and that meet the needs of universities have broken down.<sup>104</sup>

The post hearing questions asked all to suggest regulatory language appropriate for this expansion. The BYU Idaho letter proposed limitations such as a market check that would appropriately cabin this new exemption. This language will help to fill the marketplace gap to provide motion pictures to stream to classrooms as well as lack of optical disc drives. In addition, it will provide for appropriate market checks and other limitations endorsed in other exemptions.

1. a college, university, or K-12 educational library lawfully owns the motion pictures acquired on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, where circumvention is undertaken by college and university employees or students or by kindergarten through twelfth-grade (K-12)

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<sup>97</sup> *Id.* at 27-28.

<sup>98</sup> While this example was worsened by the pandemic, it is still important example of the gap in the marketplace that justifies this exemption.

<sup>99</sup> *Id.* at 24.

<sup>100</sup> University of Illinois Class 1 Letter, at 1.

<sup>101</sup> See Post Hearing Letter of Brigham Young University Idaho (BYU Idaho Class 1 Letter), at 1, <https://www.copyright.gov/1201/2021/post-hearing/letters/1201-Post-Hearing-Letter-Response-BYU.pdf>.

<sup>102</sup> *Id.* It should be noted that many of these streaming services did provide free access to their libraries for a time, but those have expired. See BYU Idaho Class 1 Letter, at 1.

<sup>103</sup> See Class 1 Post Hearing Letter of Columbia University (Columbia Class 1 Letter), at 1, <https://www.copyright.gov/1201/2021/post-hearing/letters/2021-05-07-pantalony-reply-USCO.pdf>.

<sup>104</sup> *Id.*

educators or students (where the K-12 student is circumventing under the direct supervision of an educator), including of accredited general educational development (GED) programs, for the purpose of criticism, comment, teaching, or scholarship allowed under 17 U.S.C. §§ 107, 110(1), 110(2);

2. a reasonable search of major educational motion picture platforms demonstrates that no ownable or licensable copy which can be streamed for classroom uses as defined under §§ 110(1) and 110(2) is available for purchase at a reasonable price;

3. the college, university, or K-12 institution reasonably protects any copies of motion pictures made under this exception from downstream uses;

4. the college, university, or K-12 institution has reasonable policies ensuring all uses are noninfringing under §§ 107, 110(1), and 110(2);

5. and decrypted copies are not transferred to any other institutions or entities.<sup>105</sup>

Columbia University<sup>106</sup> and the University of Illinois<sup>107</sup> also proposed helpful language to consider. A few points are important from the three proposals. First, the BYU-Idaho suggestion more closely tracks the current overall exemption for Class 1. As such, the language included is well understood and keeps the regulatory language consistent. However, NTIA believes that the Copyright Office should preserve an exception to the more commonly used short portions exemption. At this point, NTIA does not see justification to replace the short portion exemption with this new one. Second, while NTIA endorses this idea for post-secondary faculty and employees, the idea of including students in this exemption has not been raised. For this reason alone, this new exemption should not serve to replace the existing exemption. It should only be used when the primary purpose is to show the work in a teaching situation where more than a short portion is needed, such as playing the entire work for a class. Further, we think this exemption would be easily misunderstood to authorize students to decrypt works they

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<sup>105</sup> BYU Idaho Class 1 Letter, at 2.

<sup>106</sup> Columbia University suggested the following: “During an initial three year rulemaking term, motion pictures (including television shows and videos), as defined in 17 U.S.C. 101, where the motion picture is lawfully made and acquired by an accredited non-profit educational institution, on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, and the person engaging in circumvention under paragraph (b)(1)(i) and (b)(1)(ii)(A) and (B) of this section, acting on behalf of a non-profit accredited educational institution, determines after a reasonable effort, that non-circumventing alternatives are not available for license at a fair price; where circumvention is undertaken solely in order to provide lawful streamed access to its faculty, researchers and students for the purposes of research and teaching.” Columbia Class 1 Letter, at 2.

<sup>107</sup> The University of Illinois proposed the following: “Use of a full movie when a streaming version is not commercially available for educational purposes after conducting a reasonable search for an available license: (A) By college and university faculty and students or kindergarten through twelfth-grade (K–12) educators and students (where the K–12 student is circumventing under the direct supervision of an educator), including of accredited general educational development (GED) programs, for the purpose of criticism, comment, teaching, or scholarship.” University of Illinois Class 1 Letter, at 2.

borrow from school libraries. There does not appear to be a scenario for appropriate use for students. Here the most common use is to play the entire work in a classroom setting – and we see little need for students to do so.<sup>108</sup> Therefore, only the institution should be involved in making the decision to circumvent.

We also note, however, that it is good policy to extend this exemption to K-12 educators for the same reasons that it should be extended to the post-secondary institutions. While NTIA acknowledges there was very little discussion of K-12 need for this exemption, every single use demonstrated for the university level will also be needed at the K-12 level. As these uses are noninfringing for post-secondary level educational entities, they will also be noninfringing for K-12.

Most importantly here are the suggested limitations for the educational institution to circumvent. The institution will need to limit uses to noninfringing educational uses such as authorized by the various sections of the Copyright Act. Again, these sections should only be used as guidelines. For example, to the extent it is unclear whether an institution may play a full-length motion picture for a class on film studies lab and provide access to that virtually as a part of the class offering – that should also be included. To be certain, NTIA suggests adding language to the text that specifically authorizes this type of use.<sup>109</sup> NTIA agrees that using the language of the Copyright Act also permits other uses outside the classroom such as study of the film. For example, for a history class, students receive an assignment to study the use of actual footage of the Vietnam War in motion pictures and compose an essay. It would be an appropriate use for the students to conduct this scholarship to log into the university system to play the films on this list in their dorm rooms or the library. Thus, it would be inappropriate to limit this use to classroom play only.<sup>110</sup>

Additionally, the university will need to do a market search for available works that will fit the needs of the educational use. If such works are unavailable or a license cannot be obtained, the university may use its DVD collection to fill that need including breaking the encryption and storing the motion picture on a server in a format that can be streamed to the classroom. As NTIA noted in 2018, we believe storing and streaming these works on a closed university system is also sufficient safeguard against infringement. This will require the institution to police downstream uses including such technological measures as is necessary to protect the work. The remaining limitations articulate this idea of putting the onus on the university to ensure that unencrypted works are not shared, played or copied outside these authorized uses.

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<sup>108</sup> NTIA notes that Columbia did not extend their suggested language to students, but left it at the institutional level. *See, e.g.*, Columbia Class 1 Letter, at 2.

<sup>109</sup> *See generally*, April 6 Hearing Transcript, Remarks of Sara Rachel Benson, at 184-185, and Peter Decherney, at 226-228. This at least in part contains a discussion with the University of Illinois where a film could be shown to an in person class but could not be shown to a virtual class under Section 110.

<sup>110</sup> The record does not contain a lot of discussion of these types of uses. Nevertheless, NTIA believes it is good policy to extend the uses possible under the exemption to those beyond the classroom.

**NTIA Recommendation for Class 1 (Full Length):** NTIA recommends adopting the BYU Idaho suggested text with a few modifications as discussed above as follows:

Except more than short portions may be used when a college, university, or K-12 educational library lawfully owns<sup>111</sup> the motion pictures acquired on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, where circumvention is undertaken by college and university employees ~~or students~~ or by kindergarten through twelfth-grade (K-12) educators or employees<sup>112</sup> ~~or students~~ (~~where the K-12 student is circumventing under the direct supervision of an educator~~), including of accredited general educational development (GED) programs, where circumvention is undertaken solely in order to provide streamed access to the motion picture for its faculty, researchers and students for the purposes of research and teaching including in the classroom;<sup>113</sup> ~~for the purpose of criticism, comment, teaching, or scholarship allowed under 17 U.S.C. §§ 107, 110(1), 110(2); circumvention may occur after~~ a reasonable search of major educational motion picture platforms demonstrates that no ownable or licensable copy which can be streamed for classroom uses (including virtual classrooms) as defined under §§ 110(1) and 110(2) is available for purchase at a reasonable price; the college, university, or K-12 institution reasonably protects any copies of motion pictures made under this exception from downstream uses; the college, university, or K-12 institution has reasonable policies ensuring all uses are noninfringing as guided by<sup>114</sup> ~~under~~ §§ 107, 110(1), and 110(2); and decrypted copies are not transferred to any other institutions or entities.

**Class 1 Conclusion:** Having analyzed the record, NTIA supports renewal of the exemption and recommends certain modifications to the exemption as the proponents have requested will not affect the market value of copyrighted works, and will provide relief from the harm proponents have demonstrated. Accordingly, if the Copyright Office were to recommend proceeding with the above NTIA-recommended changes for Class 1, it will read as follows:

(1) Motion pictures (including television shows and videos), as defined in 17 U.S.C. § 101, where the motion picture is lawfully made and acquired on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, and the person engaging in circumvention under paragraph (b)(1)(i) and (b)(1)(ii)(A) and (B) of this section reasonably believes that non-circumventing alternatives are unable

<sup>111</sup> This language is an important limitation here to make it clear that circumvention cannot be made on motion pictures not owned by the educational entity. For example, an instructor may wish to circumvent a work they own to be able to use in the classroom or in research. By not permitting this use, it will keep the works used within the control of the educational entity.

<sup>112</sup> This is a conforming change with prior suggested language changes to include employees of educational institutions.

<sup>113</sup> This section is borrowed from the Columbia University suggested language and defines more precisely this specific use. This use of classroom should include all possible classrooms including virtual.

<sup>114</sup> This change is discussed above and suggests not that the uses are contemplated by these sections but the technological policies implemented by the educational entity can be drawn from these sections.

to produce the required level of high-quality content, where circumvention is undertaken solely in order to make use of short portions of the motion pictures in the following instances:

(i) For the purpose of criticism or comment:

(A) For use in documentary filmmaking, or other films where the motion picture clip is used in parody or for its biographical or historically significant nature;

(B) For use in noncommercial videos (including videos produced for a paid commission if the commissioning entity's use is noncommercial); or

(C) For use in nonfiction multimedia e-books.

(ii) For educational purposes:

(A) By college and university employees and students or kindergarten through twelfth-grade (K–12) educators, employees and students (where the K–12 student is circumventing under the direct supervision of an educator), including of accredited general educational development (GED) programs, for the purpose of criticism, comment, teaching, or scholarship and other uses contemplated by Sections 107, 110(1), 110(2) and 112(f);

(B) By faculty of massive open online courses (MOOCs) offered by accredited nonprofit educational institutions to officially enrolled students through online platforms (which platforms themselves may be operated for profit), in film studies or other courses requiring close analysis of film and media excerpts, for the purpose of criticism or comment, where the MOOC provider through the online platform limits transmissions to the extent technologically feasible to such officially enrolled students, institutes copyright policies and provides copyright informational materials to faculty, students, and relevant staff members, and applies technological measures that reasonably prevent unauthorized further dissemination of a work in accessible form to others or retention of the work for longer than the course session by recipients of a transmission through the platform, as contemplated by 17 U.S.C. 110(2); or

(C) By educators and participants in nonprofit digital and media literacy programs offered by libraries, museums, and other nonprofit entities with an educational mission, in the course of face-to-face instructional activities, for the purpose of criticism or comment, except that such users may only circumvent using screen-capture technology that appears to be offered to the public as enabling the reproduction of motion pictures after content has been lawfully acquired and decrypted.

(D) By educators and preparers of online learning materials offered by educational entities to registered learners of online learning platforms when use of the film and media excerpts will contribute significantly to learning, including for the purpose of criticism, comment, illustration and explanation, where the online provider will limit these online learning materials, to the extent technologically feasible, to registered learners of the online learning platform, institute copyright policies, and provide copyright information to educators and preparers of online learning materials, learners, and relevant staff members, and the online provider, to the extent technologically feasible, will work to reasonably prevent unauthorized further dissemination of online

learning materials in accessible form to others, including after the registration period ends.

(E) Except more than short portions may be used by a college, university, or K-12 educational library lawfully owns the motion pictures acquired on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, where circumvention is undertaken by college and university employees or by kindergarten through twelfth-grade (K-12) educators or employees including of accredited general educational development (GED) programs, where circumvention is undertaken solely in order to provide streamed access to the motion picture for its faculty, researchers and students for the purposes of research and teaching including in the classroom; circumvention may occur after a reasonable search of major educational motion picture platforms demonstrates that no ownable or licensable copy which can be streamed for classroom uses (including virtual classrooms) as defined under §§ 110(1) and 110(2) is available for purchase at a reasonable price; the college, university, or K-12 institution reasonably protects any copies of motion pictures made under this exception from downstream uses; the college, university, or K-12 institution has reasonable policies ensuring all uses are noninfringing as suggested by §§ 107, 110(1), and 110(2); and decrypted copies are not transferred to any other institutions or entities.

### **Class 2 – Audiovisual Works – Texting**

SolaByte Corporation seeks a new exemption to permit the use of short (10 seconds or less) audiovisual clips in text messages to enhance communication and understanding.<sup>115</sup> Clips would be taken from various audiovisual works such as movies, TV programs, music video, and other copyrighted works, stored on DVD and Blue-ray discs.<sup>116</sup> This petition was opposed.<sup>117</sup>

**NTIA Position:** NTIA does not support the proposed exemption.

**Analysis:** Proponents did not provide sufficient evidence on the record to define the exact scope and underlying circumstances to support this petition. The Copyright Office sought further clarification regarding this petition in its 2020 NPRM by noting a lack of argument and

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<sup>115</sup> See Class 2 Petition for New Exemption of SolaByte Corporation (SolaByte Class 2 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20SolaByte%20-%20202.pdf>.

<sup>116</sup> *Id.* Proponent suggests that the exemption would allow users “to create expressive clips that convey their thoughts when texting.” *Id.* at 2.

<sup>117</sup> Class 2 Opposition Comments of MPA, ARM, and ESA (Joint Creators Class 2 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_2\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_2_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf); Class 2 Opposition Comments of DVD CCA and AACSLA (DVD CCA Class 2 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_2\\_Opp'n\\_DVD%20CCA%20and%20AACSLA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_2_Opp'n_DVD%20CCA%20and%20AACSLA.pdf).

substantiation.<sup>118</sup> Opponents largely agree with this observation, with one entity also noting that the exemption would interfere with an already existing market for licensing movie clips.<sup>119</sup> Nevertheless, proponents failed to file any further comments or otherwise present evidence at the hearings.<sup>120</sup> While NTIA believes this proposed use may not be clearly covered by current exemptions and therefore warrants future discussion regarding this issue, proponents did not meet their burden in this round.

**NTIA Recommendation for Class 2 (Texting):** Without evidence in the record to support this petition, NTIA recommends denying the proposed exemption.

### **Class 3 – Audiovisual Works – Accessibility**

The Association of Transcribers, Speech-to-Text Providers (ATSP), Association on Higher Education and Disability, and Library Copyright Alliance collectively propose to “renew the existing exemption for disability services professionals to circumvent technological protection measures (TPMs) on audiovisual works for the purpose of adding captions and/or audio description to a motion picture to create an accessible version under Rule 201.40(b)(2).”<sup>121</sup> NTIA supports renewal of the current exemption.<sup>122</sup>

Petitioners propose several changes, including: (1) allowing for the remediation of motion pictures for faculty and staff with disabilities as well as students; (2) re-use remediated

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<sup>118</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65303. Specifically, the Office sought “additional detail about the scope of the proposed exemption...such as whether the exemption would be available for commercial services[,]. . .specificity [of] the relevant TPMs and whether their presence is adversely affecting noninfringing uses, [and] any anticipated effect that circumvention of TPMs would have on the market for or value of the relevant copyrighted works. . . .” *Id.*, at 65303.

<sup>119</sup> Further arguments in the Joint Creators Class 2 Opposition Comments added that “at least some of the proposed uses are potentially covered by the existing ‘non-commercial’ video exemption for purposes of criticism or comment” and that “consumers may obtain clips using non-circumventing alternatives such as screen capture technology.” Joint Creators Class 2 Opposition Comments, at 3; *see also* DVD CCA Class 2 Opposition Comments, at 3.

<sup>120</sup> The Free Software Foundation, Inc. filed comments in support of every class, including this Class 2 petition, by simply noting (in most instances) that all users have a legitimate right to circumvention regardless of the reason. *See* Class 2 Initial Comments of Free Software Foundation (Free Software Class 2 Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class%2002\\_InitialComments\\_Free%20Software%20Foundation.pdf](https://www.copyright.gov/1201/2021/comments/Class%2002_InitialComments_Free%20Software%20Foundation.pdf). NTIA does not endorse this blanket statement. While we encourage all parties to participate in this proceeding in a meaningful way, current law requires limitations to circumvention of access controls to protected works.

<sup>121</sup> Class 3 Petition for New Exemption of Association of Transcribers and Speech-to-Text Providers, Association on Higher Education and Disability, & Library Copyright Alliance (ATSP, AHEAD & LCA Class 3 Petition), Docket No. 2020-11, at 3, [https://www.copyright.gov/1201/2021/comments/Class%2003\\_InitialComments\\_Association%20of%20Transcribers%20and%20Speech-to-Text%20Providers.%20Association%20on%20Higher%20Education%20and%20Disability,%20and%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/Class%2003_InitialComments_Association%20of%20Transcribers%20and%20Speech-to-Text%20Providers.%20Association%20on%20Higher%20Education%20and%20Disability,%20and%20Library%20Copyright%20Alliance.pdf).

<sup>122</sup> *See* 37 C.F.R. § 201.40(b)(2)(i); *see also* ATSP, AHEAD & LCA Class 3 Petition, at 4.

copies already made in the past; (3) allow educational institutions to create accessible versions proactively (and not wait for an accommodation request from a student); and (4) clarify the parameters of the phrase “reasonable effort” with respect to determining whether an accessible version of a motion picture is of “sufficient quality.”<sup>123</sup> Of these four proposed changes, there is opposition to only two.

**NTIA Position:** NTIA recommends the renewal of the existing exemption as well as the requested expansions as described in the post-hearing submissions.<sup>124</sup>

**Analysis:** Three years ago the Librarian of Congress granted an exemption to permit educational institutions’ disability rights offices to circumvent technological protection measures on motion pictures in order to add accessibility features for their students, which filmmakers do not provide.<sup>125</sup> Educational institutions here include K-12 and post-secondary schools.<sup>126</sup> NTIA supported the exemption in 2018, which increased the copyrighted works available to disabled persons.<sup>127</sup> The Copyright Office is recommending renewal of the existing exemption.

Proponents seek relatively modest expansions in four areas, and there is little opposition to these requested expansions.<sup>128</sup> In fact, at the hearings, agreement was generally reached among the parties except on two of the expansions – Proactive Remediation and Sufficient Quality.<sup>129</sup> On April 16, 2021, the Copyright Office wrote to the parties to urge agreement on these two expansions.<sup>130</sup> In their response, dated July 14, 2021, the parties noted that although “discussions were productive, [they] were not able to reach agreement on specific regulatory language.”<sup>131</sup> Despite this lack of consensus, the proposed regulatory language is nearly identical from both sides. As explained in a later *ex parte* notice, “the parties fell just short of

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<sup>123</sup> ATSP, AHEAD & LCA Class 3 Petition, at 2-3; *see also* 2020 NPRM, 85 Fed. Reg. 65293, 65303-65304.

<sup>124</sup> We note that there are two other proposed accessibility related exemptions: Classes 8 and 17. We will discuss those separately.

<sup>125</sup> 2018 Final Rule, 83 Fed. Reg. 54010, 54015.

<sup>126</sup> *See* ATSP, AHEAD & LCA Class 3 Petition at 8; *see also* 2020 NPRM, 85 Fed. Reg. 65293, 65303.

<sup>127</sup> *See* 2018 Final Rule, 83 Fed. Reg. 54010; 2018 NTIA Letter, 9-10.

<sup>128</sup> *See* ATSP, AHEAD & LCA Class 3 Petition.

<sup>129</sup> *See* Transcript, Hearing on Exemptions to the Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Section 1201 – Digital Millennium Copyright Act, Remarks of J. Matthew Williams, at 9 (Apr. 5, 2021) (April 5 Hearing Transcript), <https://www.copyright.gov/1201/2021/hearing-transcripts/21040-Section-1201-Public-Hearing-Classes-3-17-8.pdf>.

<sup>130</sup> Letter from Regan A. Smith, General Counsel and Associate Register of Copyrights, U.S. Copyright Office, to Jonathan Band, Counsel, Library Copyright Alliance, *et al.*, (April 16, 2021) (2021 Letter from Regan Smith), <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-3-Post-Hearing-Letter-04.16.2021.pdf>.

<sup>131</sup> Letter from Blake E. Reid, Director of the Samuelson-Glushko Technology Law & Policy Clinic, Colorado Law, to Regan A. Smith, General Counsel and Associate Register of Copyrights, U.S. Copyright Office, *et al.*, (May 14, 2021) (2021 Letter from Blake Reid), <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-3-Accessibility-Petitioners-Post-Hearing-Response.pdf>. It was additionally noted that parties reached agreement on a multitude of issues during *ex parte* proceedings.

mutually agreeable language, despite having found high level of agreement in principle in multiple points during the time allotted for compromise discussions.”<sup>132</sup> As such, NTIA supports these modest changes and expansions. And, as with the existing exemption, the proposed expansions meet the tests required by Section 1201 to qualify as an exemption to anti-circumvention.

**Faculty and Staff:** Proponents seek to expand the exemption to include faculty and staff, as well as students with disabilities.<sup>133</sup> Currently, the exemption only applies to “students”—i.e., when “[c]ircumvention is undertaken . . . for the purpose of adding captions and/or audio description to a motion picture to create an accessible version as a necessary accommodation for a student or students with disabilities.”<sup>134</sup> Proponents assert that, like students, the disability rights offices (or similar offices) at educational institutions also serve disabled faculty and staff by providing requested modifications to add accessibility features to motion pictures.<sup>135</sup> There is no opposition to this expansion.<sup>136</sup> NTIA concurs that this is an appropriate expansion and good policy noting that the uses for staff and faculty who may have disabilities and who serve at the educational institutions will still be largely the same educational uses as it is for students who were requesting accommodations. Thus, the analysis does not change. Proponents provide sufficient evidence to proceed with this change.

**Re-use of Remediated Motion Pictures:** Proponents seek to clarify the existing exemption to ensure that they can store and re-use motion pictures remediated under the exemption in response to future requests and needs.<sup>137</sup> The only concern raised here noted that, if permitted, the storage of these remediated works would need to be secure and not on an open server, or provided only upon request.<sup>138</sup> Joint Creators specifically state that if “institutions

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<sup>132</sup> Michael B. Ayers Ex Parte Notice Letter to Mark Gray and Rachel Count (Aug. 3, 2021) (Michael Ayers Ex Parte Letter), <https://www.copyright.gov/1201/2021/ex-parte/Classes1-3-7aAACSLA-DVDCCAExParteMeetingSummaryDVDCCAandAACSLA.pdf>.

<sup>133</sup> Class 3 Petition for New Exemption for Association of Transcribers and Speech-to-Text Providers (ATSP Class 3 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Association%20of%20Transcribers%20and%20Speech-to-Text%20Providers%20et%20al.pdf>.

<sup>134</sup> *Id.*

<sup>135</sup> *Id.*

<sup>136</sup> NTIA notes that this is similar to the request from BYU discussed above in Class 1 that is seeking to expand the exemption to a practical group that should be authorized to use and be served by the exemption. The opposition suggested “individuals with disabilities” as an alternative formulation, which NTIA does not necessarily oppose as a possible way forward, but prefers the list proposed here: students, faculty and staff. See Letter from Joint Creators and Copyright Owners and DVD CCA and AACSLA to Regan A. Smith, General Counsel and Associate Register of Copyrights, U.S. Copyright Office, *et al.*, (May 14, 2021) (2021 Letter from Joint Creators), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-3-Joint-Creators-DVD-CCA-Post-Hearing-Response.pdf>.

<sup>137</sup> *Id.* at 3.

<sup>138</sup> Class 3 Opposition Comment of Joint Creators and Copyright Owners (Joint Creators Class 3 Opposition Comments), Docket No. 2020-11,

comply with the existing requirement to store copies in a manner intended to reasonably prevent unauthorized further dissemination of a work (which should include encryption/password protection/copy controls where possible), we do not oppose this request.”<sup>139</sup> NTIA concurs that these are reasonable limitations.

**Proactive Remediation:** Proponents assert that they should not have to wait for reasonable accommodation requests before starting a remediation of a motion picture. Specifically, proponents assert that the “exemption currently limits eligibility to remediation undertaken as a necessary accommodation . . . under an applicable disability law, such as the Americans with Disabilities Act, the Individuals with Disabilities Education Act, or Section 504 of the Rehabilitation Act.”<sup>140</sup> Proponents explain that it is unclear whether Educational Institution Units (EIUs) may proactively use this exemption for materials that “are likely to be subject to future accommodation requests.”<sup>141</sup> Proponents argue that the exemptions language should be altered to allow EIUs to more proactively create and facilitate access to necessary accommodations.<sup>142</sup>

The Joint Creators and Copyright Owners oppose this expansion, arguing that by allowing this proactive step without a request, the remediation may not be necessary when actually requested.<sup>143</sup> Opponents point out that because “motion pictures are increasingly being made available in accessible formats... the proposed expansion would result in many motion pictures being decrypted that very well may be available in an accessible format by the time it becomes necessary to accommodate a student or faculty member who needs an accessible copy of a motion picture for a class.”<sup>144</sup> Additionally, opponents suggested that this would allow educational entities to acquire permanent copies of works from streaming services when only temporary ones had been purchased.<sup>145</sup> As such, opponents suggest a significant risk of disproportionate risk of harm, even if unintentional.<sup>146</sup>

The DVD Copy Control Association also would oppose the expansion if the remediation was not tied to a specific or identified need, but stated that they would not oppose this expansion if it is to relieve students from the burden of seeking remediation.<sup>147</sup> Opponents note that the proposed regulatory language may be broadly interpreted to allow for indefinite room for

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[https://www.copyright.gov/1201/2021/comments/opposition/Class\\_3\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_3_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf).

<sup>139</sup> *See id.* at 3.

<sup>140</sup> ATSP Class 3 Petition, at 3.

<sup>141</sup> Class 3 Opposition Comments of DVD CCA and AACSLA (DVD CCA Class 3 Opposition Comments), Docket No. 2020-11, at 4,

[https://www.copyright.gov/1201/2021/comments/opposition/Class\\_3\\_Opp'n\\_DVD%20CCA%20and%20AACSLA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_3_Opp'n_DVD%20CCA%20and%20AACSLA.pdf).

<sup>142</sup> Joint Creators Class 3 Opposition Comments, at 3.

<sup>143</sup> *See id.*

<sup>144</sup> *Id.* at 4.

<sup>145</sup> *See id.*

<sup>146</sup> *Id.*

<sup>147</sup> DVD CCA Class 3 Opposition Comments, at 4.

circumvention, but suggest that “remediation should occur no earlier than at the point the instructor knows or reasonably believes his or her course will make use of a particular work.”<sup>148</sup> Opponents suggest proposed language that a disability rights office have a reasonable belief that a need exists to remediate the work for a specific future educational purpose and that the remediation take place soon after circumvention.<sup>149</sup>

**Expansion of Reasonable Effort to find an Accessible Work of Sufficient Quality:**

Proponents seek a clarification in the limitation requiring reasonable effort to find accessible works available in the market that are of sufficient quality to adequately serve the needs of the student, faculty or staff.<sup>150</sup> They have added language regarding motion pictures provided as a part of a text book.<sup>151</sup> The proponents assert that, on occasion, as they seek to meet the needs of a particular request, the quality of the features provided are not sufficient to meet the needs of students and they have needed to re-caption or re-describe the video or correct errors.<sup>152</sup> Proponents maintain that “the exemption should be modified to specify that “accessible versions” must exist at the time an EIU undertakes the “reasonable effort” and be available at no additional cost beyond the cost of the inaccessible version of the work.”<sup>153</sup>

Opponents do not oppose these clarifications generally, but request maintaining the market check requirement and additional security measures as required limitations.<sup>154</sup> Opponents “ask that any alteration to the exemption language adhere closely to the factual scenario presented,” and additionally note that the exemption covers only “*necessary accommodations*.”<sup>155</sup> Opponents further note that due the increasingly accessible format of motion pictures, the proposed exemption risks decrypting a significant amount of copyrighted work that may be alternatively available.<sup>156</sup>

**NTIA Recommendation for Class 3 (Accessibility):** Based upon the foregoing, NTIA recommends the Librarian modify the exemption language as follows:

“(2)(i) Motion pictures (including television shows and videos), as defined in 17 U.S.C. 101, where the motion picture is lawfully acquired on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological measure, where:

(A) Circumvention is undertaken by a disability services office or other unit of a kindergarten through twelfth-grade educational institution, college, or university

<sup>148</sup> *See id.*

<sup>149</sup> *See id.*

<sup>150</sup> ATSP, AHEAD & LCA Class 3 Petition, at 13.

<sup>151</sup> *See id.*

<sup>152</sup> *Id.*

<sup>153</sup> *Id.* at 13-14.

<sup>154</sup> *See DVD CCA Class 3 Opposition Comments.*

<sup>155</sup> *See Joint Creators Class 3 Opposition Comments, at 4; see also 37 C.F.R. § 201.40 (b)(2)(i)(a).*

<sup>156</sup> *Id.*

engaged in and/or responsible for the provision of accessibility services to students, for the purpose of adding captions and/or audio description to a motion picture to create an accessible version as a necessary accommodation for a student or students, faculty, or staff with disabilities;<sup>157</sup> ~~under an applicable disability law, such as the Americans With Disabilities Act, the Individuals with Disabilities Education Act, or Section 504 of the Rehabilitation Act;~~<sup>158</sup>

(B) The educational institution unit in paragraph (b)(2)(i)(A) of this section has, after a reasonable effort, determined that an accessible version of sufficient quality cannot be obtained at a fair price or in a timely manner, including where a copyright holder has not included an accessible version of a motion picture included with a textbook; and<sup>159</sup>

(C) The accessible versions are provided ~~to students or educators~~ and stored by the educational institution, including storage that allows for future reuse of the accessible versions consistent with the purpose specified in subparagraph (i)(A), in a manner intended to reasonably prevent unauthorized further dissemination of a work.

(ii) For purposes of this paragraph (b)(2), “audio description” means an oral narration that provides an accurate rendering of the motion picture.

(iii) For purposes of this paragraph (b)(2), “creat[ing] accessible versions for students, faculty, or staff with disabilities” includes adding captions and/or description to a motion picture when the educational institution unit in subparagraph (i)(A) has a reasonable belief that the motion picture will be used for a specific future activity of the institution and the addition of captions and/or audio description occurs promptly after circumvention.<sup>160</sup>

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<sup>157</sup> Joint Creators recommended adding the “for educational uses for individuals with disabilities,” which is consistent with the overall purpose of this exemption. *See*, Joint Creators Post Hearing Letter, at 2. NTIA also notes this as a possible text for this section that could simplify and shorten the section. We believe the better formulation defines for whom the educational entity may perform the circumvention, which includes for purposes of an accommodation and lists students, faculty, or staff. NTIA does not believe this inappropriately limits the exemption but instead helps to clarify the possible uses for which the educational entity may circumvent the work. With that said, proponents’ argument that the addition of educational uses has not been adequately discussed and may add unnecessary limitations is valid. For that reason NTIA thought it best not to include “for educational uses” here although that should be implicit in what is being authorized here.

<sup>158</sup> NTIA notes that neither the proponents nor opponents recommend keeping this text that references disability law. NTIA agrees that for simplification of the regulatory text this may be struck as it is implied with the use of the retention of the term “necessary accommodation,” which is terminology that points back to requirements of the disabilities laws mentioned and is sufficient. We note that opponents do not include this term, but proponents do. We believe it helps the user understand under what circumstances the circumvention is authorized.

<sup>159</sup> The wording here largely tracks the proponents latest version and that has apparent agreement from the opponents. It does not contain all of the proposed additions from the opponents in their post--hearing letter.

<sup>160</sup> NTIA believes to ensure consistency, the word “audio” should be added to the last line of this new section and in the subsequent section when referencing description to modify slightly these sections as recommended by the proponents.

(iv) For purposes of this paragraph (b)(2), “accessible version of sufficient quality” means a version that in the reasonable judgment of the educational institution unit in subparagraph (i)(A) has captions and/or audio description that are sufficient to meet the access needs of the relevant student[s], faculty, and/or staff member[s] with disabilities and are substantially free of errors that would materially interfere with those needs.

#### **Class 4 – Audiovisual Works – Livestream Recording**

FloSports, Inc. proposes a new exemption that would “enable a livestreaming service to provide individual viewers, via a virtual digital video recorder (“vDVR”), with access to a recording on a server for fair use purposes.”<sup>161</sup> No current exemption allows for the circumvention of technology used in the digital storage of audiovisual works originating as a livestream of events, such as sporting events, live music, and more.

**NTIA Position:** NTIA staff does not recommend supporting this request.

**Analysis:** FloSports asserts that this exemption is necessary due to the ephemeral nature of live broadcasts, which poses technical challenges in accessing stored audio and video files on a long term basis.<sup>162</sup> FloSports contends that the recording of such material constitutes fair use on the following basis:

Individual recordings of audiovisual performances, historically, had been used by directors of the groups in such recordings to instruct, teach, and otherwise educated [sic] the participants in the recordings on what went right, what went wrong, and how each could improve. Generally, the individual performances in the audiovisual streams this petition considers are a very small percentage of the entire copyrighted work (e.g., all individual performances combined for an entire copyrighted broadcast). Further, there is no current market for educational recordings at the moment. Granting this exemption, or the performance of such a recording, would not adversely affect the market for the copyrighted recordings.<sup>163</sup>

This exemption is not without opposition. A submission by the Motion Picture Association, Inc.(MPA), the Alliance for Recorded Music (ARM), and the Entertainment Software Association (ESA), jointly known as Joint Creators and Copyright Owners, asked the Copyright Office to “deny this petition because it is confusing and unsupported by coherent factual support or legal arguments.”<sup>164</sup> Joint Creators further contend that

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<sup>161</sup> Class 4 Petition for New Exemption of FloSports, Inc. (FloSports Class 4 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20FloSports.pdf>.

<sup>162</sup> *See id.*

<sup>163</sup> FloSports Class 4 Petition, at 3; *see also* 2020 NPRM, 85 Fed. Reg. 65293.

<sup>164</sup> Class 4 Opposition Comments of Joint Creators and Copyright Owners (Joint Creators Class 4 Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_4\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_4_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf).

[N]either Petitioner nor its sole supporter responded satisfactorily to the Copyright Office’s express request for clarification on: (i) the particular classes of works at issue; (ii) why the uses at issue should be lawful; (iii) whether TPMs caused the adverse effects and whether alternatives to circumvention exist; or (iv) whether the intended uses are educational, and/or noncommercial.<sup>165</sup>

First, Joint Creators point out that “FloSports had the burden to identify the technologies at issue,” and only mentioned the need to “circumvent HTTP Live Streaming (HLS), a live-video streaming technique that enables high quality streaming of media content over the internet from web servers.”<sup>166</sup> Opponents state that because FloSports had the burden to identify the technologies at issue, only HLS should be considered under this new proposition.<sup>167</sup>

Second, Joint Creators assert that “the class of works for which FloSports seeks an exemption is fatally unclear.”<sup>168</sup> Joint Creators use an example from the NPRM, explaining how it is impossible to determine whether FloSports’ “petition is intended to cover the use of copyrighted broadcasts owned by another party or other works that may be captured in broadcasts owned by FloSports.”<sup>169</sup> Joint Creators further elaborate that FloSports does not present a clear case that their proposed exemption would be noninfringing, and that the lack of distinct type of audio visual work may be interpreted to mean virtually all audio visual works, which would clearly be infringing.

Third, FloSports claims “that screen capture technology is inadequate because no educator can screen capture a live performance of his or her group that is broadcast as they perform.”<sup>170</sup> Joint Creators suggest that there are readily available technological alternatives to circumvention that could accomplish the goals for which FloSports seeks an exemption for.<sup>171</sup>

And last, regarding FloSports’ assertion that such an exemption would provide educational benefits, Joint Petitioners point out that no teachers or educators are part of the petition at all.<sup>172</sup> Joint Petitioners suggest that FloSports petition would be purely for commercial purposes.<sup>173</sup>

**NTIA Recommendation for Class 4 (Live Stream Recording):** Without evidence or further details to support or clarify this petition, NTIA cannot recommend the Librarian support this exemption. In its NPRM, the Copyright Office noted that without further clarification it was inclined to deny the petition as overly broad and unclear.<sup>174</sup> Specifically, the Copyright Office

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<sup>165</sup> *See id.* at 1-2.

<sup>166</sup> Joint Creators Class 4 Comments, at 2; *see also* FloSports Class 4 Petition, at 2.

<sup>167</sup> Joint Creators Class 4 Comments, at 2.

<sup>168</sup> *Id.*

<sup>169</sup> *Id.*; *See also* 2020 NPRM, 85 Fed. Reg. 65293, 65304.

<sup>170</sup> FloSports Class 4 Petition, at 3; *see also* Joint Creators Class 4 Comments, at 3.

<sup>171</sup> Joint Creators Class 4 Comments, at 3.

<sup>172</sup> *Id.* at 2-3.

<sup>173</sup> *Id.*

<sup>174</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65304.

sought clarification on what type of classes FloSports was requesting an exemption for, the actual extent of the asserted and perceived adverse effects “attributable to ‘[t]he cost and practical difficulty of obtaining synchronization licenses”, and additional information regarding noninfringing uses, “including whether it would be appropriate to clarify that the petition is directed at facilitating educational, noncommercial uses.”<sup>175</sup> Petitioners failed to respond to any of the Copyright Office’s call for clarification and did not participate in the hearings. NTIA concurs in the assessment that this petition is overly broad. We note that it is similar in many respects to existing exemptions such as use of small portions of motion pictures for noncommercial videos.<sup>176</sup>

The Copyright Office raised the issue that the intent of this petition may well be to largely support a commercial enterprise, stating that “[p]etitioner appears to operate a commercial livestreaming service, and it is unclear whether this exemption is intended to facilitate growth in that market.”<sup>177</sup> NTIA agrees that petitioner has not made its case and is vague on important details. Regardless, NTIA could envision a possible scenario or two akin to this proposal that may qualify as a fair use in certain limited circumstances. This idea may likely be the subject of further discussion in future rounds of this rulemaking as streaming of live competitive content continues to evolve whether it is via social media, YouTube or other Internet streaming tools. In certain circumstances use of this content in short clips may qualify as fair use, such as for a small business, where a local basketball trainer wants to show video content to teach his players a certain technique, or when a high school tennis coach wants to show clips from the latest grand slam tournament to demonstrate proper footwork. Unfortunately, the petitioner did not write a clear and concise petition that the Librarian could act upon in this round and did not respond to requests for clarification. NTIA therefore does not support this petition.

### **Class 5 - Audiovisual Works - Preservation**

The Library Copyright Alliance (LCA) has petitioned for an exemption to allow for the preservation of audiovisual works in DVDs and Blu-ray discs protected by the Content Scramble System or the Advanced Access Control System, respectively. As initially proposed, the proposed exemption would cover “[m]otion pictures (including television shows and videos), as defined in 17 U.S.C. 101, where the motion picture is lawfully acquired on a DVD protected by [CSS], or on a Blu-ray disc protected by the [AACS], and is no longer reasonably available in the commercial marketplace, for the purpose of lawful preservation of the motion picture, by a library, archives, or museum.”<sup>178</sup> LCA has also requested that the exemption extend to off-premises access, particularly for “educational uses,” if the petitions to expand the software and video game preservation exemptions (Class 14(a) and (b), respectively) to off-premises access

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<sup>175</sup> *Id.*

<sup>176</sup> *See 2018 Final Rule*, 83 Fed. Reg. 54010.

<sup>177</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65304.

<sup>178</sup> Class 5 Initial Comments of Library Copyright Alliance (LCA Class 5 Initial Comments), Docket No. 2020-11, at 2,

[https://www.copyright.gov/1201/2021/comments/Class%2005\\_InitialComments\\_Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/Class%2005_InitialComments_Library%20Copyright%20Alliance.pdf).

are granted.<sup>179</sup> The Free Software Foundation submitted a comment in support of the petition.<sup>180</sup> Alisha Cunzio submitted a comment requesting that “digital institutions that would otherwise qualify as eligible for section 1201 circumvention exemptions be granted clear and specific inclusion in the language of the eight triennial final ruling.”<sup>181</sup>

The Joint Creators and Copyright Owners (JCCO)<sup>182</sup> and DVD CCS and AALS oppose the petition on several grounds, including that the request is too broad and that the marketplace for motion pictures does provide reasonable alternatives to circumvention.<sup>183</sup> In response to concerns raised by opponents in their submissions in Round 2, the LCA narrowed its proposal to incorporate some limitations present in the current exemptions for preservation, as well as drawing other limitations from section 108 of Title 17.<sup>184</sup>

**NTIA Position:** NTIA supports an exemption from preservation of motion pictures (including television shows and videos) by eligible libraries, archives, and museums, as described below.

**Analysis:** LCA is concerned that large collections of DVDs and Blu-rays in libraries, archives, and museums (institutions) are degrading due to “disc rot.”<sup>185</sup> LCA presents detailed

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<sup>179</sup> *Id.*

<sup>180</sup> Class 5 Initial Comments of Free Software Foundation (FSF Class 5 Initial Comments), Docket No. 2020-11,

[https://www.copyright.gov/1201/2021/comments/Class%2005\\_InitialComments\\_Free%20Software%20Foundation.pdf](https://www.copyright.gov/1201/2021/comments/Class%2005_InitialComments_Free%20Software%20Foundation.pdf).

<sup>181</sup> Class 5 Initial Comments of Alisha Cunzio (Cunzio Class 5 Initial Comments), Docket No. 2020-11, at 1, <https://www.copyright.gov/1201/2021/comments/Class%2005%20Alisha%20Cunzio.pdf>. Alisha Cunzio’s comment cites to the current exemption for software preservation to note that a physical premises limitation “does not account for digital libraries, archives, or museums that do not have a physical premises.” The commenter notes that “[n]ot only is it imperative to include such [digital] institutions in an era of remote learning and pandemic distancing, but more and more digital-based institutions are being formed due to the significant accessibility that a lack of overhead costs due to a physical space makes.” *Id.*

<sup>182</sup> The JCCO is made up of the MPA, ARM, and ESA.

<sup>183</sup> *See, e.g.*, Class 5 Opposition Comments of Joint Creators (Joint Creators Class 5 Opposition Comments), Docket No. 2020-11, at 6-11 and Appendix i-iv,

[https://www.copyright.gov/1201/2021/comments/opposition/Class\\_5\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_5_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf); Class 5 Opposition Comments of DVD Copy Control Association and Advanced Access Content System Licensing Administrator, LLC (DVD CCA and AACLS LA Class 5 Opposition Comments), Docket No. 2020-11, at 17-21 and Swank Motion Pictures Attachment, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_5\\_Opp'n\\_DVD%20CCA%20and%20AACLS%20LA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_5_Opp'n_DVD%20CCA%20and%20AACLS%20LA.pdf).

<sup>184</sup> Class 5 Reply Comments of Library Copyright Alliance (LCA Class 5 Reply Comments), Docket No. 2020-11, at 6,

[https://www.copyright.gov/1201/2021/comments/reply/Class%2005\\_Reply\\_Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2005_Reply_Library%20Copyright%20Alliance.pdf). The two variations of proposed subsection (i)(C) account for the LCA’s request that this class not contain a physical premises limitation depending on the outcome of the rulemaking in Class 14.

<sup>185</sup> *See* LCA Class 5 Initial Comments, at 4-9. Participants at the hearing testified about “increasing problems with disc rot affecting a number of commercially-pressed DVDs” from a “wide range of

information about this phenomenon, explained why disc rot is affecting with more frequency the collections housed in the institutions, included first-hand accounts from librarians describing the issues, and asserted how the prohibition against circumvention is preventing the institutions from circumventing the TPMs on DVDs and Blu-ray discs to preserve the collections.<sup>186</sup> LCA also notes that there may be some copies in particular that suffer from accelerated disc rot due to production flaws.<sup>187</sup> LCA indicates that alternatives to circumvention are insufficient to address the concern, as copies of the copyrighted works may be commercially unavailable to the institutions and the only copies that may exist were produced decades ago or with production flaws.<sup>188</sup> LCA emphasizes that the goal of the exemption is not to target popular commercial motion pictures, but rather focus on “at-risk” copies of works that libraries, archives, and museums have lawfully acquired.<sup>189</sup>

The JCCO contend that the proposal in LCA’s petition would essentially result in a high number of decrypted copies of motion pictures being available to the public and easily risk being available online, leading to significant market harm for the copyrighted works.<sup>190</sup> They highlight a number of provisions from the current preservation exemptions are absent from LCA’s original proposal.<sup>191</sup> The JCCO remain skeptical about an exemption for preservation of motion pictures even if all those concerns were resolved, and note that “[f]ar more tailoring is therefore necessary” for an exemption to even be considered.<sup>192</sup> Moreover, both the JCCO and DVD CCS and AALS contend that the marketplace offers readily available alternatives that obviate the need for an exemption.<sup>193</sup> Opponents’ concerns about an exemption in this area ultimately did not appear to change substantially at the hearing or in the post-hearing record, including in reaction to narrower proposals.<sup>194</sup>

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producers.” *See, e.g.*, Transcript, Hearing on Exemptions to the Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Section 1201 – Digital Millennium Copyright Act, Remarks of James Steffen, at 590 (Apr. 19, 2021) (April 19 Hearing Transcript), <https://www.copyright.gov/1201/2021/hearing-transcripts/210419-Section-1201-Public-Hearings-Class-5-14a-14b.pdf>.

<sup>186</sup> *See* LCA Class 5 Initial Comments, at 2, 4-10. As LCA notes, the TPMs at issue are the Content Scrambling System (CSS) in DVDs, and the Advanced Access Content System in Blu-ray discs, and the methods of circumvention are similar to those in other classes covering motion pictures protected by such TPMs.

<sup>187</sup> *See* LCA Class 5 Reply Comments, at 4; April 19 Hearing Transcript, Remarks of James Steffen, at 590-91.

<sup>188</sup> *See, e.g.*, LCA Class 5 Reply Comments, at 4-6; LCA Class 5 Initial Comments, at 8-10; April 19 Hearing Transcript, Remarks of James Steffen, at 590-91.

<sup>189</sup> *See* April 19 Hearing Transcript, Remarks of Jonathan Band, at 602-03; Class 5 Ex Parte Letter of the Library Copyright Alliance (LCA Class 5 Ex Parte Letter) (June 23, 2021), Docket No. 2020-11, at 1, <https://www.copyright.gov/1201/2021/ex-parte/Class-5-DVD-Preservation-ex-parte-letter-from-LCA.pdf>.

<sup>190</sup> *See, e.g.*, Joint Creators Class 5 Opposition Comments, at 11.

<sup>191</sup> *Id.* at 11.

<sup>192</sup> *Id.*

<sup>193</sup> *Id.* at Appendix i-iv; DVD CCA and AACS LA Class 5 Opposition Comments, at 17-21 and Swank Motion Pictures Attachment.

<sup>194</sup> For example, in a post-hearing *ex parte* letter, counsel for MPA “responded more specifically to the *ex parte* letter filed on Proposed Class 5 [by LCA], which appeared to narrow the scope of the requested

NTIA is persuaded that the initial framing of the proposed exemption should be narrowed. Specifically, NTIA recommends using the existing software preservation exemption as a guide, with modifications to address particular concerns here. NTIA believes an exemption for the preservation of motion pictures should have similar restrictions, particularly as LCA largely bases its arguments on the rationale for those exemptions.<sup>195</sup> LCA has, as noted above, narrowed their proposal to include some key limitations.<sup>196</sup>

NTIA supports additional limitations to the original proposal that at a minimum:

- 1) State that the exemption is solely for the preservation of the motion picture (including television shows and videos);
- 2) Cabin the eligibility of libraries, archives, and museums to those entities that meet the institutional requirements under the current software preservation exemption, including the requirement that the institutions must implement reasonable digital security measures as appropriate for the activities covered in the exemption; and
- 3) Restrict the institutions to activities carried out without any purpose of direct or indirect commercial advantage.

And to determine commercial unavailability, the following modified language drawing from section 108:

- 4) Require the eligible institution to engage in a reasonable effort to determine that an unused and undamaged replacement copy cannot be obtained at a fair price.

NTIA agrees this proposed exemption, in seeking to preserve copies of works in collections that the institutions have lawfully acquired, should “concentrate on the most at-risk motion pictures.”<sup>197</sup> But such evaluation does not stop at discs currently damaged or deteriorating, as “the objective of preservation is better achieved if the preservation occurs before the copy of the motion picture is damaged or deteriorating” and “[d]ata lost to disc rot cannot be retrieved.”<sup>198</sup> It makes sense for libraries, archives, and museums to want to proactively respond to the problem if they can do so by preserving copies they have lawfully acquired that are not otherwise commercially available to them.

Opponents argue that attempts at accounting for “fragility” in section 108 of Title 17 have not advanced legislatively, even though they have been raised in other important copyright

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exemption.” The counsel “reiterated MPA’s opposition to the exemption even if it was narrowed as discussed in the letter.” Class 1 & 5 Ex Parte Letter of MPA (MPA Class 1 & 5 Ex Parte Letter) (Aug. 17, 2021), Docket No. 2020-11, at 1, <https://www.copyright.gov/1201/2021/ex-parte/Classes-1-and-5-Ex-Parte-Meeting-Summary-MPA.pdf>.

<sup>195</sup> See LCA Class 5 Initial Comments, at 2-4.

<sup>196</sup> See LCA Class 5 Reply Comments, at 6.

<sup>197</sup> See LCA Class 5 Ex Parte Letter.

<sup>198</sup> LCA Class 5 Reply Comments, at 3.

policy discussions.<sup>199</sup> NTIA thinks opponents' argument would be more on point if section 108 served as the exclusive or primary basis for the exemption. As has been recognized, including in these rulemakings, section 108 is not the only relevant limitation on exclusive rights that affect preservation.<sup>200</sup> Fair use plays an important role in understanding which uses may be permitted in this context.<sup>201</sup> Moreover, section 108 is not well-suited by itself attend to the needs of modern digital preservation efforts by the institutions. The Copyright Office has recognized that “[t]he current section 108 language is insufficient to address digital works and digital transmissions, does not reflect the way that libraries and archives actually operate, and excludes museums, among other constraints.”<sup>202</sup> Indeed, the Copyright Office and the Librarian have accommodated exemptions for preservation that go beyond the language in section 108. For example, both the video game and software preservation exemptions include “museums” as eligible entities, and the software preservation exemption requires institutions to implement “reasonable digital security measures.”<sup>203</sup> As the LCA also points out, the software preservation exemption does not depend on degrading or deteriorating copies of works (or even copies of works in obsolete formats, where the discussion was more relevant in the software context).<sup>204</sup> Section 108 also contains a saving clause on fair use.<sup>205</sup> The Copyright Office has further noted that “fair use remains an important safety valve that is available to libraries and archives in situations not addressed by the text of section 108.”<sup>206</sup>

Therefore, fair use is an essential part of the consideration to determine what noninfringing use may entail. After proper scoping to generally align with limitations in the current exemptions for video game and software preservation (except in one respect, and assuming no off-premises access, which will be further discussed below), NTIA believes that the exemption sought here fits within the contours of fair use as discussed in previous rulemakings. As a starting proposition, NTIA notes that “preventative preservation” – that is, preservation sought by the institutions for the institutions’ lawfully acquired copies of works that are in danger of deterioration and are expected in time to deteriorate to the point of irretrievability of

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<sup>199</sup> April 19 Hearing Transcript, Remarks of J. Matthew Williams, at 616-18.

<sup>200</sup> See, e.g., April 19 Hearing Transcript, Remarks of Jonathan Band, at 618 (providing that “[Section] 108 is not the be-all and end-all that is applicable. You know, the Office has already determined that Section 107 is relevant in this context”). That being said, at a minimum proponents have presented strong arguments that at the very least support a preservation exemption based primarily on Section 108. NTIA, however, believes that the totality of the records supports going further than Section 108, and that going further would actually address the adverse effects presented here.

<sup>201</sup> See, e.g., H.R. Rep. No. 105–551, pt. 2, at 25 (1998) (“Commerce Committee Report”) (“Fair use, thus, provides the basis for many of the most important day-to-day activities in libraries, as well as in scholarship and education.”)

<sup>202</sup> U.S. Copyright Office, *Section 108 of Title 17, Discussion Document of the Register of Copyrights (2017 Discussion Document)* (Sept. 2017), at 1, <https://www.copyright.gov/policy/section108/discussion-document.pdf>.

<sup>203</sup> See, e.g., 37 C.F.R. §201.40(b)(12), (13). As noted in the discussion for Class 14, NTIA recommends that the latter provision apply equally to the video game preservation exemption.

<sup>204</sup> LCA Class 5 Reply Comments, at 2-3.

<sup>205</sup> 17 U.S.C. §108(f)(4).

<sup>206</sup> 2018 Register’s Recommendation, at 240 (internal citation and brackets omitted).

the content – does not negate fair use; instead, such concept would seem to be within the scope of fair use, at least for archival preservation.<sup>207</sup>

Under the first factor, the use here would preserve copies to provide greater accessibility to works for which the institutions have already lawfully acquired copies, promoting significant social benefits by helping further activities such as research. Even if the Register does not resolve whether the use is transformative, the use sought here is a “favored purpose” under the fair use analysis, and, moreover, would incorporate key elements from section 108.<sup>208</sup> The use here is also not commercial. Under the second factor, although the copyrighted works at issue are expressive and even though this factor may not favor fair use, the factor is of limited significance because preservation is “necessary to allow continued legitimate use of the work.”<sup>209</sup> Under the third factor, the institutions would be allowed to copy up to the entire work, but, as the Copyright Office has noted, the amount that would be copied is “reasonable in relation to the purpose of the copying.”<sup>210</sup>

The fourth factor does not weigh against a finding of fair use, including under a modified section 108 test for commercial unavailability (see above). Since the institutions have to carry out the covered activities without any purpose of direct or indirect commercial advantage, no presumption should be read that the use is harmful to the market or has the potential to be harmful if widespread.<sup>211</sup> While the reissue market is likely larger here than in the context of video games or computer programs, LCA has pointed to examples of works that do not appear to

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<sup>207</sup> See Copyright Law Revision, House of Rep., Rep. No. 94-1476, 94<sup>th</sup> Congress, 2d. Session. (Copyright Law Revision), at 73, [https://www.copyright.gov/history/law/clrev\\_94-1476.pdf](https://www.copyright.gov/history/law/clrev_94-1476.pdf). The report states: “A problem of particular urgency is that of preserving for posterity prints of motion pictures made before 1942. Aside from the deplorable fact that in a great many cases the only existing copy of a film has been deliberately destroyed, those that remain are in immediate danger of disintegration; they were printed on film stock with a nitrate base *that will inevitably decompose in time*. The efforts of the Library of Congress, the American Film Institute, and other organizations to rescue and preserve this irreplaceable contribution to our cultural life are to be applauded, and the making of duplicate copies for purposes of archival preservation certainly falls within the scope of ‘fair use.’” (emphasis added). Although this Congressional report refers to an “*immediate* danger of disintegration,” the danger appears to be coming from the fragility in the composition of the medium to which the work is affixed and does not necessarily seem to relate to decomposition that may be actively happening (or actively happening for at least some copies), as well as the potential unavailability of the work through means other than preservation. Per the record presented in this rulemaking, disc rot presents an analogous phenomenon. While certainly every object will degrade given enough time, LCA persuasively argues why this problem exists now. See LCA Class 5 Reply Comments, at 3-4. LCA also explains for certain works are commercially unavailable to them, and thus their lawfully acquired copies might disintegrate before they find a substitute in the marketplace. See *id.*, at 5-6. In any event, the Congressional record indicates that preservation to address decomposition of motion pictures that “will inevitably” occur “in time” is a legitimate activity that can be supported under fair use.

<sup>208</sup> See 2018 Register’s Recommendation, at 242.

<sup>209</sup> See 2018 Register’s Recommendation, at 243 (citing 2015 Recommendation, at 338).

<sup>210</sup> See *id.*

<sup>211</sup> *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 591 (1994) (“No ‘presumption’ or inference of market harm that might find support in [*Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984)] in a case involving something beyond mere duplication for commercial purposes.”).

have been reissued, including some that may have only ever been released commercially once and where copies that may exist are not readily available or are unlikely to be prime candidates for preservation purposes (*e.g.*, they are also deteriorating because they may have been created decades ago or because all copies made in a particular place may suffer from the same production flaws).<sup>212</sup> Opponents list various services that make works commercially available, indicating that this undercuts proponents' arguments about the state of the marketplace.<sup>213</sup> NTIA is not as persuaded that the availability of these services solves the problem at hand. Indeed the availability of these services would be more persuasive if the services carried all or a majority of the corpus at issue or, in the case of some services, if they licensed to the institutions directly. The availability of these services does indicate, however, that when works are available in the commercial marketplace, the institutions will use these services rather than circumvent, which is their current practice.<sup>214</sup> Overall, the fourth weighs in favor of fair use, or, at least, is not dispositive against proponents when considered in relation to the other three factors.

**Alternatives to Circumvention and Statutory Factors:** Proponents have demonstrated that the prohibition on circumvention leads to the adverse effects they wish to address. NTIA is persuaded that there are no reasonable alternatives for libraries, archives, and museums to address the adverse effects discussed under this exemption. Moreover, NTIA is persuaded that the “reasonable commercial availability” condition that is present in the current video game and software preservation exemptions should be modified to address the commercial environment in which libraries, archives, museums operate. As LCA indicates, the availability of services that provide licenses to stream some content is insufficient to address the adverse effects due to the lack of a fulsome catalogue that includes the copies of the works the institutions lawfully acquired (and that contain material like bonus features, which may be even more elusive to obtain lawfully) and because some of services that might carry a broader set of collections do not license to these institutions. As a result, while the existence of those services certainly offers significant value, they do not seem to be a viable alternative to fill the institution’s need for an exemption for preservation of motion pictures that the institutions have already lawfully acquired. Even individuals working at the institutions who may see these services as valuable for faculty and students nonetheless note the need for an exemption for library preservation.<sup>215</sup> Moreover, the only copies of works that may be available in the marketplace might be in the same medium that suffers from “disc rot.” Therefore, it would be more appropriate for this class to require the institutions to engage in reasonable efforts to determine whether an unused and undamaged replacement copy is available to them at a fair price, a test tailored to meet this particular need.

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<sup>212</sup> LCA Class 5 Initial Comments, at 4; LCA Class 5 Reply Comments, at 4-6.

<sup>213</sup> *See, e.g.*, Joint Creators Class 5 Opposition Comments, at Appendix i-iv.

<sup>214</sup> For example, the Film and Media Services Librarian at the University of California at Berkeley described that “at the University of California, Berkeley, we spend more than a quarter of a million dollars annually on licensing media content for our users -- for our 21 students, faculty, and staff. So, \$237,000 is spent licensing media. We're not seeking to not pay to use content.” April 19 Hearing Transcript, Remarks of Gisele Tanasse, at 620-21; *see also* LCA Class 5 Reply Comments, at 2.

<sup>215</sup> *See* LCA Class 5 Reply Comments, at 4, n.4.

The statutory factors overall also weigh in favor of proponents. The exemption is for preservation by the eligible institutions of copies of the copyrighted works to make copies available to their patrons; the copies would be made available for purposes such as scholarship and research; by preserving copies of the works, the exemption would promote criticism, comment, news reporting, and teaching based on that scholarship and research; and, given that the intention of the exemption is to limit one copy to one patron at a time and the exemption would target “at-risk” works, circumvention would not appear to have a significant negative impact on the market for or value of the copyrighted works.<sup>216</sup> Making the preserved copies could lead to renewed public interest and commercial demand in less-known and obscure motion pictures (and their bonus materials) based on the results of the scholarship and research allowed under the exemption.

Off-Premises Request: The LCA also requests that if the Copyright Office recommends granting the petitions for Class 14(a) and Class 14(b), that “this class be expanded to include off-premises uses of the preserved motion pictures, particularly educational uses.”<sup>217</sup> NTIA fully recognizes that the record presented here could have been more robust to, for example, discuss the impact that not including a physical premises limitation might have on the marketplace for motion pictures. However, NTIA urges the Copyright Office and the Librarian to evaluate the request on its merits.

NTIA agrees that a significantly thin record on an issue can weigh heavily against proponents in this proceeding, but there are critical public policy reasons to consider this particular request on its merits, and, when viewed within the context of Class 14, there is sufficient information on the record for a more substantive evaluation. It is difficult to believe that the challenges faced by the institutions due to the ongoing global pandemic simply end based on the “particular class of work” at issue, especially given the phenomenon of “disc rot” described in the Class 5 record and the substantial commonalities between Class 14 and Class 5 beneficiaries. In Class 5, the LCA spends only a few sentences discussing the pandemic, and is more focused on obtaining an exemption for preservation in the first place. In Class 14, where there is already an exemption established for preservation, LCA and the Software Preservation Network extensively describe the challenges that libraries, archives, and museums are facing due to ongoing global pandemic, including through first-hand accounts from librarians and others impacted.<sup>218</sup> The substantial challenges librarians and others similarly situated face should be

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<sup>216</sup> April 19 Hearing Transcript, Remarks of Jonathan Band, at 615 (“I mean, the idea [of a server copy] is if you have one copy in your collection, that you would end up with one copy in your collection and that only one copy could be used at a time, right? . . . [N]o one’s envisioning that this should lead to a proliferation of copies . . . [T]he goal here is to maintain the status quo.”). Further, as the LCA notes, the current exemption for software preservation does not appear to restrict institutions from making copies in a different medium than that of the original copy of the work lawfully acquired.

<sup>217</sup> LCA Class 5 Initial Comments, at 2.

<sup>218</sup> See generally Class 14 Initial Comments of Software Preservation Network (SPN Class 14 Initial Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class%2014a%20and%2014b\\_InitialComments\\_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/Class%2014a%20and%2014b_InitialComments_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf); see also Class 14 Reply Comments of Software Preservation Network (SPN Class 14 Reply Comments), Docket No. 2020-11,

addressed in contexts where the analyses may be similar. Moreover, LCA has indicated that the pandemic did affect its contribution to the record in at least one respect: “Because of the Covid-19 pandemic, many libraries are still closed, so librarians have been unable to provide us with comprehensive lists of titles of discs in their collections experiencing disc rot.”<sup>219</sup> LCA also notes, albeit briefly, the impact the pandemic has had on the institutions.<sup>220</sup>

NTIA believes it is appropriate to incorporate aspects of the analysis of the record in Class 14 into the analysis here, as it has least been requested by LCA since early in the proceeding. In other words, as much material as appropriate and relevant from the Class 14(a) and Class 14(b) analyses should be considered in this class (particularly if the Copyright Office recommends and/or the Librarian grants an exemption in Class 5 and Class 14). This could include, for example, Class 14 proponents’ fair use arguments, in particular indicating why remote access within the context the preservation exemptions leans to fair use. It may cover analysis related to the institutions’ implementation of reasonable digital security measures to protect the covered activities and the copies of the works. It could consider how appropriate it may be to evaluate whether all the limitations that would be placed on the institutions in Class 14 to permit remote access would be sufficient to mitigate market harm here, even when the markets are not exactly the same but where there is a record of what the market here looks like today. Considering the analysis in Class 14 with Class 5 would be in line with the approach petitioner has requested the Copyright Office and the Librarian to adopt since early in the proceeding and for which the proponent provided model regulatory language in its Round 3 comments available to all parties.

Should off-premises access be permitted, libraries, archives, and museums would be able to start or continue highly socially beneficial work—and, with appropriate limitations, would help minimize risk to copyright holders. The Librarian, when analyzing the record and making her decision, can take a relatively inclusive approach in evaluating the interests and the significant social benefits at issue. Indeed, the fifth statutory factor affords the Librarian such flexibility, as it notes that “*the Librarian shall examine . . . such other factors as the Librarian considers appropriate.*”<sup>221</sup> The role of libraries in the digital age was an essential part of the

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[https://www.copyright.gov/1201/2021/comments/reply/Class%2014b\\_Reply\\_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2014b_Reply_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf).

<sup>219</sup> LCA Class 5 Initial Comments, at 6, n. 2. Regardless of the Register and the Librarian’s disposition of the “off-premises access” issue for this class, this should be considered as a factor impacting the record more.

<sup>220</sup> LCA Class 5 Reply Comments, at 2 (“First, many library buildings have now been closed for almost twelve months due to the COVID-19 pandemic. Important research has been interrupted because of the inaccessibility of motion pictures. Second, off-premises access could be afforded to authorized students and researchers without the motion pictures being available to the general public for entertainment purposes. Thus, libraries could provide off-premises access to preserved motion pictures without harming streaming services.”). As noted at beginning of this section, another commenter also supports not including a physical premises limitation.

<sup>221</sup> See 17 U.S.C. §1201(a)(1)(C)(v) (emphasis added). Indeed, NTIA regularly stresses that this proceeding should focus on copyright law and policy concerns. NTIA believes that factors that exacerbate the prohibition on circumvention’s adverse effects to users being able to make non-infringing uses of copyrighted works are a component of a core copyright concern.

discussions leading to the passage of the DMCA. As NTIA noted in its first consultation with the Copyright Office in the year 2000, when deliberating the inclusion of section 1201, the Committee on Commerce of the House of Representatives was particularly interested in the fair use concerns of libraries and educators.<sup>222</sup> Congress, of course, did not stop there to attempt to address the needs of libraries in the digital era, as it also passed important updates to section 108.

The prohibition on circumvention ultimately creates the adverse effects at issue in the discussion for this class. However, the pandemic has significantly increased the need for people to work and learn from home—indeed, to be creative with limited resources—and the LCA has noted that this has impacted research that would be supported by access to libraries.<sup>223</sup> As such, the pandemic aggravates the adverse effects created by the prohibition on circumvention. It is appropriate, NTIA believes, to strongly consider the effects of the ongoing global pandemic as a factor in this evaluation, particularly given the continued uncertainty the pandemic presents for people being able to access physical premises readily but in which libraries are equipped to serve their patrons in a largely off-premises manner and take great care to ensure the safety of their staff and patrons (and the libraries’ collections), even if they have to take drastic steps at potentially significant cost.<sup>224</sup> As discussed further in Class 14, NTIA stresses that the exemptions granted under this rulemaking are *temporary*, and are thus well-positioned to address present-day concerns and can be modified should those concerns change in the next three

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<sup>222</sup> Letter from Gregory L. Rohde, Assistant Secretary of Commerce for Communications and Information, Administrator NTIA, to Marybeth Peters, Register of Copyrights, Library of Congress, at 2, n. 7 (Sept. 29, 2000) <https://www.copyright.gov/1201/2000/commerce.pdf> (citing H.R. Rep. No. 105–551, pt. 2, at 25) (1998) (“Commerce Comm. Report”). Indeed, the first exemption NTIA supported “as a starting point” in a DMCA 1201 rulemaking was one proposed by the “library and academic communities.” *Id.* at 4.

<sup>223</sup> LCA Class 5 Reply Comments, at 2.

<sup>224</sup> *See, e.g.*, American Library Association, “2021 State of America’s Libraries: Special Report: COVID-19,” at 8, <https://www.ala.org/news/sites/ala.org.news/files/content/State-of-Americas-Libraries-Report-2021.pdf> (“For libraries, however, closing didn’t mean shutting down; rather it required finding new ways to serve and continue supporting their communities— often at a distance. . . . The Public Library Association (PLA), an ALA division, conducted a survey March 24–April 1 to understand how public libraries were responding to the pandemic. Although 99 percent of respondents confirmed that their libraries had closed, most of them had extended online renewal policies, expanded online checkout services, and added virtual programming.”); *id.* at 9 (“It wasn’t just public libraries that felt the impact of COVID-19. A survey developed by Lisa Janicke Hinchliffe (University of Illinois at Urbana–Champaign) and Christine Wolff-Eisenberg (Ithaca S+R) chronicled the impact of the pandemic on academic libraries. It found that libraries pivoted reference services to online or phone delivery. Meanwhile, access to print collections, whether onsite or via delivery, declined significantly.”); American Library Association COVID-19 Recovery, <https://www.ala.org/tools/covid/libraries-respond-covid-19-survey>; American Library Association, Pandemic Preparedness, <https://www.ala.org/tools/atoz/pandemic-preparedness>; “ALA Executive Board recommends closing libraries to public,” American Library Association News, <https://www.ala.org/news/press-releases/2020/03/ala-executive-board-recommends-closing-libraries-public>. *See also* Laura Wronski & Jon Cohen, “Uncertainty is back on Main Street as delta variant rattles reopening plans,” CNBC, <https://www.cnbc.com/2021/08/12/uncertainty-is-back-on-main-street-as-delta-variant-rattles-reopening.html>.

years.<sup>225</sup> NTIA believes that the Librarian would be justified in granting an exemption for off-premises access in this class similar to that which may be granted in Class 14(a) or 14(b). There are broad benefits to society if libraries, archives, and museums can preserve lawfully acquired works in their collections.<sup>226</sup> Libraries, archives, and museums serve unique and special roles in society. NTIA believes they should be afforded the opportunity under the law to continue to serve those roles remotely.

**NTIA Recommendation for Class 5 (Preservation):** For the reasons stated above, NTIA supports the following exemption:

- (i) Motion pictures (including television shows and videos), as defined in 17 U.S.C. § 101, that have been lawfully acquired on a DVD protected by the Content Scramble System, or on a Blu-ray disc protected by the Advanced Access Content System, solely for the purpose of lawful preservation of the motion picture, by an eligible library, archives, or museum, where such activities are carried out without any purpose of direct or indirect commercial advantage, and the eligible institution, after a reasonable effort, determined that an unused and undamaged replacement copy cannot be obtained at a fair price.
- (ii) For purposes of the exemption in paragraph (i) of this section, a library, archives, or museum is considered “eligible” if—
  - (A) The collections of the library, archives, or museum are open to the public and/or are routinely made available to researchers who are not affiliated with the library, archives, or museum;
  - (B) The library, archives, or museum has a public service mission;
  - (C) The library, archives, or museum’s trained staff or volunteers provide professional services normally associated with libraries, archives, or museums;
  - (D) The collections of the library, archives, or museum are composed of lawfully acquired and/or licensed materials; and
  - (E) The library, archives, or museum implements reasonable digital security measures as appropriate for the activities permitted by this paragraph.

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<sup>225</sup> As noted in Class 14, however, NTIA does not intend to suggest that there would not be a need for an exemption once the pandemic subsides.

<sup>226</sup> For reasons discussed in Class 14, NTIA is not opposed in principle to including additional parts of Section 108 to limit an exemption that provides off-premises access as a way to balance the interests at issue, but, if the concept of “notice” in Sections 108(d)(1) and (e)(1) is incorporated into the regulation, that requirement should be carefully written to ensure that it serves as a meaningful way for copyright holders to assert their rights while protecting the ability of others to continue to make noninfringing uses under the exemption. On the other hand, as also noted in Class 14, NTIA would instead be more supportive of including a limitation for off-premises access that explicitly denotes that the preserved works are available for teaching, research, or scholarship.

## Class 6 – Audiovisual Works – Space-Shifting

Petitioners seek an exemption to allow owners of a copy of a DVD or Blu-ray disc to make a backup copy five years after purchase.<sup>227</sup> The Librarian rejected similar proposals in the 2006, 2012, 2015, and 2018 rulemakings, finding that the proponents had failed to clearly establish under applicable law that space-shifting for this purpose is a noninfringing use.<sup>228</sup> There is continued opposition to this type of proposal from the content community.<sup>229</sup> The petitioners did not file comments nor participate in the hearings to further support their petition.

**NTIA position:** NTIA recommends denying this proposed exemption.

**Analysis:** The Copyright Office invited the petitioners to provide evidence that in the last three years facts and/or the law have changed sufficiently to convince the Office to recommend

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<sup>227</sup> See Class 6 Petition for New Exemption of Solabyte Corporation (Solabyte Class 6 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20SolaByte%20-%201.pdf>; see also 2018 NTIA Letter (providing that “[s]pace-shifting refers to the transfer of digital content that enables a user to view on a different device the content protected by technological protection measures embedded in a lawfully acquired device (e.g., a DVD, a Blu-ray disc, or a computer hard-drive). The physical devices in which the content is fixed contain TPMs that control users’ ability to move that content to different devices for personal use or to create backup copies.”).

<sup>228</sup> See U.S. Copyright Office, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, Docket No. RM 2005-11, Final Rule, 71 Fed. Reg. 68472, 68478 (Nov. 27, 2006) (2006 Final Rule), <https://www.gpo.gov/fdsys/pkg/FR-2006-11-27/pdf/E6-20029.pdf> (stating that “[y]et these commenters uniformly failed to cite legal precedent that establishes that such space-shifting is, in fact, a noninfringing use.”); see also, U.S. Copyright Office, *Exemptions to Permit Circumvention of Access Controls on Copyrighted Works*, Docket No. 2011-7, Final Rule, 77 Fed. Reg. 65260, 65277 (Oct. 26, 2012) (2012 Final Rule), <https://www.gpo.gov/fdsys/pkg/FR2012-10-26/pdf/2012-26308.pdf> (providing that “[b]ut while the Register was sympathetic to the desire to consume content on a variety of different devices, she noted that there is no basis under current law to assume that the space shifting activities that would be permitted under NTIA’s proposal would be noninfringing”); see also U.S. Copyright Office, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, Docket No. 2014-07, Final Rule, 80 Fed. Reg. 65944, 65960 (Oct. 28, 2015) (2015 Final Rule), <https://www.gpo.gov/fdsys/pkg/FR-2015-10-28/pdf/2015-27212.pdf> (stating that “[i]n the past four rulemakings, the Register has declined to recommend, and the Librarian has declined to adopt, an exemption for such uses because the proponents had failed to establish a legal or factual record sufficient to establish that the space- or format shifting of audiovisual works, e-books, and other copyrighted works constitutes a noninfringing use”); see also 2018 Final Rule, 83 Fed. Reg. 54010, 54027 (“...the Acting Register found no basis to depart from the fair use analysis and ultimate conclusion reached in the 2015 proceeding, where the Register was unable to determine that the proposed uses were noninfringing.”). NTIA notes that while this proposal is for space-shifting for personal use which has not been found to be a noninfringing use in the past, the space-shifting discussed above in Class 1 for educational uses does present a better case for noninfringing use of the work.

<sup>229</sup> See Class 6 Section 1201 Exemptions to Prohibition Against Circumvention of Technological Measures Protecting Copyrighted Works: Opposition Comments, <https://www.copyright.gov/1201/2021/comments/opposition/>. Joint Creators and Copyright Owners (JCCO), the DVD CCA and AACS LA, and Software and Information Industry Association (SIIA) all filed oppositions to the petition.

the petition. The petitioners did not do so. In fact, the opposition noted that “[t]he submissions in the present rulemaking offer no new evidence, legal arguments or legal authorities in support of the exemption.”<sup>230</sup> Without evidence or further details or legal or policy discussion to support or clarify this petition, NTIA cannot support this petition as presented.

**NTIA Recommendation for Class 6 (Space Shifting):** NTIA recommends the Librarian deny the proposed exemptions.

**Class 7 – Class 7(a) (Motion Pictures – Text and Data Mining) and 7(b) (Literary Works – Text and Data Mining)**

Proponents seek a new exemption to allow for circumvention by researchers in the social sciences and humanities seeking to perform text and data mining (“TDM”) on electronic copies of literary works and motion pictures. The Authors Alliance, American Association of University Professors, and LCA (collectively “TDM Petitioners”) petition for a new exemption “for researchers to circumvent [TPMs] on lawfully accessed literary works distributed electronically as well as on lawfully accessed motion pictures, in order to deploy text and data mining techniques.”<sup>231</sup> In response to comments filed by opponents, discussion during the hearing, and post-hearing questions posed by the Copyright Office, TDM Petitioners propose various modifications and limitations. Their current proposal would limit the exemption to literary works (excluding computer programs) which are “lawfully made and obtained.”<sup>232</sup> Under the revised proposal, in order for circumvention to be lawful, it must be undertaken by a researcher affiliated with a nonprofit library, archive, museum, or institution of higher education, for the purpose of scholarly research and teaching. Moreover, the researcher, under the revised proposal, would be required to utilize “reasonable security measures to limit access to the corpus of circumvented works only to other researchers affiliated with qualifying institutions for purposes of collaboration or the replication and verification of research findings.”<sup>233</sup>

**NTIA position:** NTIA recommends adoption of exemptions that track the TDM Petitioners’ revised proposal. Specifically:

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<sup>230</sup> Class 6 Opposition Comments of SIIA (SIIA Class 6 Opposition Comments), Docket No. 2020-11, at 1,

[https://www.copyright.gov/1201/2021/comments/opposition/Class\\_6\\_Opp'n\\_Software%20and%20Information%20Industry%20Association%20FINAL.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_6_Opp'n_Software%20and%20Information%20Industry%20Association%20FINAL.pdf).

<sup>231</sup> Class 7 Petition for New Exemption of Authors Alliance, American Association of University Professors, and LCA (Authors Alliance Class 7 Petition), Docket No. 2020-11, at 2,

<https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Authors%20Alliance%20et%20al.pdf>.

<sup>232</sup> Class 7 Reply Comments of Authors Alliance, American Association of University Professors, and LCA (Authors Alliance Class 7 Reply Comments), Docket No. 2020-11, at 6,

[https://www.copyright.gov/1201/2021/comments/reply/Class%207\(a\)%20and%207\(b\)\\_Reply\\_Authors%20Alliance,%20American%20Association%20of%20University%20Professors,%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%207(a)%20and%207(b)_Reply_Authors%20Alliance,%20American%20Association%20of%20University%20Professors,%20Library%20Copyright%20Alliance.pdf).

<sup>233</sup> *Id.*

Class 7(a): Motion pictures, where the motion picture is lawfully made and obtained on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological protection measure,<sup>234</sup> where:

- (1) the circumvention is undertaken by a researcher affiliated with a nonprofit library, archive, museum, or institution of higher education to deploy text and data mining techniques for the purpose of scholarly research and teaching; and
- (2) the researcher uses reasonable security measures to limit access to the corpus of circumvented works only to other researchers affiliated with qualifying institutions for purposes of collaboration or the replication and verification of research findings.

Class 7(b): Literary works, excluding computer programs, distributed electronically and lawfully obtained, that are protected by technological measures that interfere with text and data mining, where:

- (1) the circumvention is undertaken by a researcher affiliated with a nonprofit library, archive, museum, or institution of higher education to deploy text and data mining techniques for the purpose of scholarly research and teaching; and
- (2) the researcher uses reasonable security measures to limit access to the corpus of circumvented works only to other researchers affiliated with qualifying institutions for purposes of collaboration or the replication and verification of research findings.

**Analysis:** NTIA supports an exemption that tracks the TDM Petitioners’ revised proposal, with exceptions for preexisting databases specifically prepared for TDM purposes. An exemption here would advance the overriding objectives of copyright law – namely, “[t]o promote the Progress of Science and useful Arts . . . .”<sup>235</sup> Moreover, the limitations the TDM Petitioners have placed on their initial request – for example, requiring reasonable security and excluding computer programs - address NTIA’s concerns with the earlier proposals.

The TDM Petitioners and their supporters argue persuasively that TDM, as performed on literary works and motion pictures, has produced and will continue to produce substantial social benefits. TDM, in their words, “makes it possible to glean insights from large volumes of material, more than a single researcher could ever examine unaided.”<sup>236</sup> To perform TDM, a

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<sup>234</sup> This framing intentionally tracks the language used in the existing exemption set forth in 37 C.F.R. § 201.40(b)(1).

<sup>235</sup> U.S. Const. art. 1, § 8, cl. 8; *see also Campbell*, 510 U.S. at 574 (quoting same).

<sup>236</sup> Class 7 Initial Comments of Authors Alliance, American Association of University Professors, and LCA (Authors Alliance Class 7 Initial Comments), Docket No. 2020-11, at 5,

researcher must compile a large collection of digitized works – most critically here, motion pictures (7a) or books (7b). The researcher then uses search tools or other mechanisms to assess patterns such as how frequently a given word is used over time or how the portrayal of a particular group in literature or film has evolved. The TDM Petitioners submitted letters from numerous researchers and groups detailing the broad and valuable ends toward which TDM is being applied.<sup>237</sup>

Proponents have argued persuasively (and opponents do not dispute) that the application of TPMs to digitized books and motion pictures hinder access to the underlying works for purposes of performing TDM. Films distributed on DVD are subject to the Content Scramble System (CSS), which encrypts the underlying work. Blu-ray discs, similarly, are protected by the Advanced Access Content System (AACS). Digitally distributed films are also encrypted. The Register has recognized that CSS, AACS, and the encryption used to protect motion pictures transmitted digitally all constitute TPMs.<sup>238</sup> Likewise, literary works distributed as e-books are protected by TPMs – as the Register also has recognized.<sup>239</sup>

These TDMs, proponents have shown, undermine research activities. Professor Matthew Sag observes in a letter filed by petitioners that researchers “frequently curtail their studies because ... otherwise useful digital works are protected by TPMs.”<sup>240</sup> Instead, they “focus their efforts on low-risk data, such as works in the public domain,” resulting in a dearth of “significant research into contemporary cultural works including literature, movies, and tv shows.”<sup>241</sup> Two researchers who submitted letters for the record indicate, for example, that Section 1201 TPMs have prompted them to eschew their prior study of post-World War II novels.<sup>242</sup> Another reports that she has shifted from studying the copyrighted literary works of James Baldwin in favor of studying tweets *citing* such works. Two professors focused on analysis of visual works comments that, as a result of TPMs sanctioned by Section 1201, they “cannot study the 20<sup>th</sup> and 21<sup>st</sup> century visual culture, which is only available through media formats such as DVDs and protected digital files.”<sup>243</sup> These limitations severely restrict the study of numerous topics, stunting research across a wide array of topics. The record includes letters from researchers stating that, if an exemption were granted, they would pursue research on subjects as varied as

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[https://www.copyright.gov/1201/2021/comments/Class%2007a%20and%2007b\\_InitialComments\\_Authors%20Alliance,%20American%20Association%20of%20University%20Professors,%20and%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/Class%2007a%20and%2007b_InitialComments_Authors%20Alliance,%20American%20Association%20of%20University%20Professors,%20and%20Library%20Copyright%20Alliance.pdf).

<sup>237</sup> *Id.* at Appx. A-Appx. P.

<sup>238</sup> See *Sixth Triennial Section 1201 Rulemaking, Recommendation of Register of Copyrights* (2015 Register’s Recommendation) (Oct. 2015), <https://www.copyright.gov/1201/2015/register-recommendation.pdf>.

<sup>239</sup> *Id.*

<sup>240</sup> Authors Alliance Class 7 Initial Comments, at Appx. J.

<sup>241</sup> *Id.*

<sup>242</sup> See *id.*, at Appx. C (Letter from James Clawson) and at Appx. P (Letter from Henry Alexander Wermer-Colan).

<sup>243</sup> *Id.* at Appx. M (Letter from Lauren Tilton and Taylor Arnold).

the changing depiction of violence in film over the past century,<sup>244</sup> the characteristics of modern African American writing,<sup>245</sup> the evolution of how color and close-ups have been used in film over time,<sup>246</sup> and how consolidation in the publishing industry has affected fiction.<sup>247</sup>

TDM Petitioners also show that existing alternatives to circumvention are not adequate. There exist today only a handful of digital libraries; proponents argue that these contain substantial gaps and are prohibitively difficult to use.<sup>248</sup> It is likewise impractical for researchers to develop their own digital libraries from scratch, as can take decades to scan written works at the scale needed to create machine-readable databases appropriate for TDM.<sup>249</sup> Technologies such as motion picture screen capture are similarly unfeasible – one researcher, for example, reported that it would have taken ten years to use this technology to create the dataset of 10,000 films needed for his project.<sup>250</sup>

TDM Petitioners are similarly persuasive in demonstrating that the TDM-related uses that these TPMs block are likely to be noninfringing. Much of the record with respect to classes 7(a) and 7(b) centers on whether TDM, as proposed here, would constitute “fair use.” Proponents and opponents focus specifically on the Second Circuit’s decisions in *Authors Guild, Inc. v. Hathitrust* and *Authors Guild v. Google, Inc.*<sup>251</sup> NTIA agrees with proponents that the types of TDM at issue here very likely fall squarely within the “fair use” category under these and other precedents. The first factor, “the purpose and character of the use,” strongly favors a “fair use” determination. One key to the “purpose and character” inquiry is whether the use is “transformative” – *i.e.*, “if it does something more than repackage or republish the original copyrighted work,”<sup>252</sup> “add[ing] something new, with a further purpose or different character....”<sup>253</sup> The *Hathitrust* court considered whether a full-text search function, applied to a library containing more than ten million digitized works, constituted fair use. With respect to the first factor, the court determined that “the creation of a full-text searchable database is a quintessentially transformative use,” because the result of the search was “different in purpose, character, expression, meaning, and message from the page (and the book) from which it is

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<sup>244</sup> *Id.* at Appx. B (Letter from David Bamman).

<sup>245</sup> *Id.* at Appx. C (Letter from James Clawson).

<sup>246</sup> *Id.* at Appx. E (Letter from Eric Hoyt).

<sup>247</sup> *Id.* at Appx. F (Letter from Matthew Jockers).

<sup>248</sup> See Authors Alliance Class 7 Initial Comments, at 11-13.

<sup>249</sup> *Id.* at 13 (“One hundred percent of survey respondents agreed with the statement that it was ‘financially unfeasible for them to pay someone to scan and perform optical character recognition (OCR) in order to transform all of the books that they would like to use into digital copies.’”). For this reason, opponents’ claim that researchers stymied by existing databases’ gaps simply scan relevant materials themselves (Class 7 Opposition Comments of Association of American Publishers (AAP Class 7 Opposition Comments), Docket No. 2020-11, at 11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_7b\\_Opp'n\\_Association%20of%20American%20Publishers.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_7b_Opp'n_Association%20of%20American%20Publishers.pdf)), is unavailing.

<sup>250</sup> See Authors Alliance Class 7 Initial Comments, at Appx. B (Letter from David Bamman).

<sup>251</sup> See *Hathitrust*, 755 F.3d 87 (2d Cir. 2014); *Google*, 804 F.3d 202 (2d Cir. 2015).

<sup>252</sup> *Hathitrust*, 755 F.3d at 96.

<sup>253</sup> *Campbell*, 510 U.S. at 579.

drawn,” and thus did not “supersede[] the objects [or purposes] of the original creation.”<sup>254</sup> In *Google*, the court reached the same conclusion regarding copies made “for the purpose of enabling a search for identification of books containing a term of interest to the searcher.”<sup>255</sup> The actions at issue in *Hathitrust* and *Google*, the *Google* court observed, were both aimed at providing “information about th[e] books,” not at replicating the books’ contents.<sup>256</sup> The same is true here: researchers seeking to apply TDM to digitized works producing materials that are different in purpose, character, expression, meaning, and message from the underlying works – materials containing information about those works, rather than substitutes for them. As such, the first factor favors a fair use finding.

The second factor, “the nature of the copyrighted work,” considers whether the work is “of the creative or instructive type that the copyright laws value and seek to foster.”<sup>257</sup> The *Hathitrust* and *Google* courts both noted that this factor is rarely determinative of fair use, particularly where the use serves a transformative purpose. The two courts both found that the uses at issue were transformative, minimizing the second factor’s relevance.<sup>258</sup> Here, again, the results of TDM research are indisputably transformative. Thus, the second factor supports a fair use finding.

Likewise, the third factor, which looks to whether the secondary use employs more of the copyrighted work than is necessary, supports fair use here. The Supreme Court has held that “the extent of permissible copying varies with the purpose and character of the use,” and that the determinative question is whether “no more was taken than was necessary.”<sup>259</sup> In *Hathitrust*, the defendant had copied entire books, but the court determined that this was consistent with a fair use finding “[b]ecause it was reasonably necessary . . . to make use of the entirety of the works in order to enable the full-text search function.”<sup>260</sup> The *Google* court concurred, noting that “[c]omplete unchanged copying has repeatedly been found justified as fair use when the copying was reasonably appropriate to achieve the copier’s transformative purpose and was done in such a manner that it did not offer a competing substitute for the original.”<sup>261</sup> What mattered, in other words, was “not so much the [amount of the original work used] *in making a copy*, but rather the amount and substantiality of *what is thereby made accessible* to a public for which it may serve as a compelling substitute.”<sup>262</sup> Here, researchers must copy entire works in order to perform meaningful analysis using TDM: “Access to the entirety of the work is necessary for the exemption to achieve its purpose. Computational analysis of anything less than the entire works

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<sup>254</sup> *Hathitrust*, 755 F.3d at 97, quoting *Campbell*, 510 U.S. at 579 (alterations in original).

<sup>255</sup> *Google*, 804 F.3d at 216.

<sup>256</sup> *Google*, 804 F.3d at 217 (emphasis added).

<sup>257</sup> *Hathitrust*, 755 F.3d at 96, quoting Pierre N. Leval, *Toward a Fair Use Standard*, 103 HARV. L. REV. 1105, 1107, 1117 (1990).

<sup>258</sup> See *Hathitrust*, 755 F.3d at 98; *Google*, 804 F.3d at 220.

<sup>259</sup> *Campbell*, 510 U.S. at 586-87, 589.

<sup>260</sup> *Hathitrust*, 755 F.3d at 98.

<sup>261</sup> *Google*, 804 F.3d at 221.

<sup>262</sup> *Id.* at 222 (emphases in original).

would yield inaccurate and unreliable findings.”<sup>263</sup> Further, the products of their research make virtually none of the original work accessible to the public, and are not in any way a substitute for the original works.<sup>264</sup> Further, while DVD CCA contends that the proposed exemption is incompatible with the Register’s prior determination that only “short portions” of a motion picture could be used in noninfringing ways, this is not so.<sup>265</sup> The prior decision is inapposite here, because the product of TDM is not a clip of film at all, but rather data regarding that film, which is then aggregated with data from many other analyzed films. Thus, even the application of TDM to an entire motion picture is likely to reveal much *less* of the film to third parties than the reproduction of even a short clip of that film. For these reasons, the third factor favors a “fair use” finding.

Finally, the fourth fair use factor supports fair use, because there is no circumstance in which the results of TDM would undercut the market for or value of the copyrighted work in relevant ways.<sup>266</sup> “[T]he Factor Four analysis is concerned with only one type of economic injury to a copyright holder: the harm that results because the secondary use serves as a substitute for the original work.”<sup>267</sup> This variety of harm does not arise where, as here, “the secondary use is transformative.”<sup>268</sup> The *Hathitrust* court found that factor four was not applicable to the facts before it, because a “full-text search function does not serve as a substitute for the books that are being searched.”<sup>269</sup> Moreover, it was “irrelevant” that rightsholders might wish to sell licenses to others to facilitate competing search offering, because “[l]ost licensing revenue counts under Factor Four only when the use serves as a substitute for the original and the full-text search does not.”<sup>270</sup> The *Google* court went further. There, the use at issue permitted searchers to view a snippet of the underlying text. The court recognized that there “surely” would be cases in which the snippet satisfied the searcher’s needs, resulting in lost sales of the underlying work. Nevertheless, “the possibility, or even the probability or certainty, of some loss of sales does not suffice to make the copy an effectively competing substitute that would tilt the weighty fourth factor in favor of the rights holder in the original.”<sup>271</sup>

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<sup>263</sup> Authors Alliance Class 7 Reply Comments, at 21.

<sup>264</sup> Contrary to one commenter’s suggestion, TDM does not involve “converting ... books into a digitized form and making that digitized version accessible to the public.” AAP Class 7 Opposition Comments at 5, 7. Rather, the result of TDM would be an article or other publication mentioning that (for example) that a particular work is one of 1,432 works published between 1990 and 2005 containing the words “blog” or “weblog.”

<sup>265</sup> Class 7 Opposition Comments of DVD CCA and AACCS LA (DVD CCA Class 7 Opposition Comments), Docket No. 2020-11, at 8-10, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_7a\\_Opp'n\\_DVD%20CCA%20and%20AACCS%20LA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_7a_Opp'n_DVD%20CCA%20and%20AACCS%20LA.pdf).

<sup>266</sup> *Harper & Row v. Nation Enterprises*, 471 U.S. 539, 566-69 (1985).

<sup>267</sup> *Hathitrust*, 755 F.3d at 99.

<sup>268</sup> *Id.*

<sup>269</sup> *Id.* at 100.

<sup>270</sup> *Id.*

<sup>271</sup> *Google*, 804 F.3d at 224.

Joint Creators and Copyright Owners and the American Association of Publishers both suggest that the Second Circuit’s 2018 decision in *Fox News Network, LLC v. TVEyes, Inc.* either curtailed the reach of *HathiTrust* and *Google* or rendered those decisions inapplicable to video works.<sup>272</sup> It did neither. The *Fox* court considered a service offered by defendant TVEyes that enabled clients ‘to easily locate and view segments of televised video programming that are responsive to the clients’ interests.’<sup>273</sup> Clients could watch clips lasting up to ten minutes, but could watch as many such clips as they liked.<sup>274</sup> The court determined that the product at issue was not fair use, because it “makes available virtually all of Fox’s copyrighted audiovisual content – including all of the Fox content that TVEyes’s clients wish to see and hear....”<sup>275</sup> This key fact affected each prong of the fair-use analysis. For example, whereas TDM facilitates a highly transformative and typically non-commercial use, the *Fox* court found that TVEyes’s use was commercial, and that “the transformative character of the secondary use [wa]s modest.”<sup>276</sup> Whereas TDM research makes virtually none of the underlying work available to the public and limits such material to the researcher and those checking or reviewing the researcher’s work, TVEyes made “virtually the entirety of the Fox programming....” available to anyone who chooses to purchase its service.<sup>277</sup> And whereas TDM-based research does not at all displace demand for the underlying works, “[s]uch displacement d[id] occur” in the context of TVEyes’s offering.<sup>278</sup> In contrast, the works subjected to TDM here cannot be consumed by the public: Only researchers and those checking or reviewing their work would even conceivably have access to the underlying works, while others would have access only to the results of TDM research, which reveals virtually none of the corpus. For these reasons, *Fox* does not preclude a finding that TDM is fair use here.

Section 1201’s statutory factors also broadly favor expansion of the exemption to cover circumvention with respect TDM performed on the text and audiovisual works within the scope of Petitioners’ revised request. First, circumvention will enhance the copyrighted work’s availability for use. TDM’s purpose is to enable to analysis of literary works and motion pictures at scale, which in turn facilitates the production of research materials setting forth the

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<sup>272</sup> See *Fox News Network, LLC v. TVEyes, Inc.*, 883 F.3d 169 (2d Cir. 2018); see also Class 7, Opposition Comments, Joint Creators and Copyright Owners (Joint Creators Class 7 Opposition Comments), Docket No. 2020-11, at 3, [https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%207%20Comments%20-%20Motion%20Pictures%20Literary%20Works%20for%20TDM%2002%2009\(13130443.1\).pdf](https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%207%20Comments%20-%20Motion%20Pictures%20Literary%20Works%20for%20TDM%2002%2009(13130443.1).pdf); Class 7 Opposition Comments of Association of American Publishers (AAP Class 7 Opposition Comments), Docket No. 2020-11, at 4-5, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_7b\\_Opp'n\\_Association%20of%20American%20Publishers.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_7b_Opp'n_Association%20of%20American%20Publishers.pdf).

<sup>273</sup> *Fox*, 883 F.3d at 173-74.

<sup>274</sup> *Id.* at 174.

<sup>275</sup> *Id.*

<sup>276</sup> *Id.* at 178.

<sup>277</sup> *Id.* at 179.

<sup>278</sup> *Id.* at 180.

results of such analysis. The Register has found that the first statutory factor favors an exemption when it “would increase the availability of copyrighted works in the form of articles, presentations,” and similar materials.<sup>279</sup> Moreover, the risk that TDM will reduce the availability of the works at issue is vanishingly small. There is no reason to think that the production of research articles evaluating trends across dozens, hundreds, or thousands of works will undercut demand for any particular work. Moreover, the Register already has found that circumvention of TPMs with respect to motion pictures would not materially impact those films’ availability,<sup>280</sup> and that exemptions allowing circumvention have not had a harmful effect on the value of or market for e-books.<sup>281</sup>

The second and third factors strongly favor an exemption here, because an exemption for TDM would increase the availability of works for educational purposes. The Register’s 2015 recommendation favoring an exemption to permit security research observed that the prohibition against circumvention “play[ed] a negative role in universities’ willingness to engage in and fund security research, and may limit student involvement in academic research projects.”<sup>282</sup> The same is true here: An exemption would enhance research institutions’ willingness to engage in and fund research that requires application of TDM to a corpus of copyrighted work, and will expand knowledge and understanding regarding the materials studied.

Finally, the fourth statutory factor – the effect of circumvention on the market for or value of the copyrighted work – also favors an exemption here. As noted in the “fair use” discussion above, an article produced using TDM research techniques is in no way a substitute for the underlying works, and therefore would not “devalue those works.”<sup>283</sup> It therefore will have no adverse effect on the market for or value of the copyrighted works.

Several of the opponents’ most forceful arguments have been mooted by proponents’ efforts to narrow their original requests. Several opponents, for example, expressed concern that the originally proposed exemption was not limited to researchers or institutions that owned lawful copies of the underlying works.<sup>284</sup> Proponents have, however, agreed to limit the exemption to literary works and motion pictures “that have been lawfully obtained by the

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<sup>279</sup> 2018 Register’s Recommendation, at 312.

<sup>280</sup> 2015 Register’s Recommendation, at 93-94 (“The Register agrees that access controls such as AACS play a significant role in copyright owners’ ability to invest in and disseminate valuable copyrighted works. As discussed below, however, while this may be true as a general matter, the record does not reflect that allowing the uses proposed here will have a material impact on the efficacy of AACS technology or the ability to bring new Blu-ray content to market.... The Register therefore cannot conclude on this record that allowing a limited exemption to make brief, transformative uses of motion pictures for noninfringing purposes would have a material impact on the availability of motion pictures on Blu-ray or of motion pictures generally.”).

<sup>281</sup> *Id.* at 136 (finding “no evidence” that circumvention of TPMs “will undermine the value of or market for e-books, as that market has grown substantially in recent years despite the existence of earlier exemptions”).

<sup>282</sup> *Id.* at 174.

<sup>283</sup> AAP Class 7 Opposition Comments, at 12.

<sup>284</sup> *See, e.g.*, JCCO Class 7 Opposition Comments, at 3-4.

researcher or their affiliated institution.”<sup>285</sup> Likewise, some opponents worried that the original proposal might permit researchers to make works or portions thereof available to the public or expose the works to unauthorized download or distribution.<sup>286</sup> Petitioners’ modification of their request to include a “reasonable security measures” proviso addresses both of these concerns.

Other arguments raised by opponents survive the revision of Classes 7(a) and 7(b), but are unpersuasive. Some opponents claim that the class for which proponents seek an exemption is either impermissibly broad or simply undefined.<sup>287</sup> NTIA does not agree. Proponents have described TDM as a class of techniques used to analyze large volumes of material to extract specific traits – words, colors, and so forth – and identify trends and evolutions over time. The fact that proponents will not limit themselves to the particular techniques used to undertake TDM *today* does not undermine their claims.<sup>288</sup> Nor is the term “scholarly research and teaching” too broad in this context, given that the exemption as framed is limited to “a researcher affiliated with a nonprofit library, archive, museum, or institution of higher education” for the purpose of performing TDM. Similarly, there is no reason to exclude non-fiction works from the exemption’s scope, for non-fiction works (in written and audiovisual format) are amenable to productive analysis using TDM no less than fiction works.<sup>289</sup> In NTIA’s view, opponents have not demonstrated that this class is inappropriately large. Further, concerns that the exemption would be utilized by those with commercial objectives are obviated by the addition of the requirement that the researcher undertaking circumvention be affiliated with a nonprofit library, archive, museum, or institution of higher education.

Although Petitioners have agreed to a requirement that those using copyrighted works properly secure such works to prevent unauthorized access, Joint Creators and Copyright Owners continue to express concern regarding whether such security will be adequate and ask the Librarian to require specific security measures. For example, the Association of American Publishers (AAP) entreats the Librarian to apply a “minimum baseline” built on the National Institute of Standards and Technology’s (“NIST’s”) framework for highly sensitive unclassified governmental information.<sup>290</sup> The Software and Information Industry Association (SIIA) argues that “any exemption ought to expressly define [appropriate security] measures,” including

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<sup>285</sup> Authors Alliance Class 7 Reply Comments, at 7. As proponents clarify, the class of works “lawfully obtained” could extend beyond the class of works that the institution “owns,” because digital works are often characterized as having been transferred via a license rather than a sale. *See id.* at 8.

<sup>286</sup> JCCO Class 7 Opposition Comments, at 5; AAP Class 7 Opposition Comments, at 3.

<sup>287</sup> *See* DVD CCA Class 7 Opposition Comments, at 3-6.

<sup>288</sup> *See, e.g.*, Authors Alliance Comments at 15-16 (“TDM involves diverse methods. New ones will emerge. Petitioners are thus unwilling to artificially constrain eligible methods here.”).

<sup>289</sup> *See, e.g., id.* at 6-7.

<sup>290</sup> *See* Class 7 Post-Hearing Response of AAP (AAP Class 7 Post-Hearing Response) (May 21, 2021), Docket No. 2020-11, at 3, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class%207%20AAP%20--%20Post-Hearing%20Response.pdf>.

recommending using the NIST framework as applicable.<sup>291</sup> The AAP and the MPA contend that copyright owners themselves should be authorized to determine which security measures researchers must apply.<sup>292</sup> NTIA urges the Copyright Office to reject these prescriptive approaches. What constitutes reasonable security will vary by circumstance, and will likely evolve over time. To ensure that its rule is as simple as possible, and that security measures are properly targeted to specific circumstances, the Librarian should adopt a flexible framework that can be tailored to the type of work at issue, the resources of the institution, and evolving security threats. Further, there is no evidence that the “reasonable digital security” proviso adopted as a condition to the “Computer Programs—Software Preservation” class in 2018 has been unworkable or resulted in inadequate protection.<sup>293</sup> Thus, NTIA urges the Copyright Office to rely on a “reasonable security measures” requirement here, too. That approach will afford researchers and their institutions sufficient flexibility while providing appropriate safeguards against piracy and other unlawful use or access of protected materials.<sup>294</sup>

NTIA also believes that proponents have demonstrated a need for the researchers conducting TDM, and those reviewing their work, to have access to the underlying copyrighted materials. The AAP contends that researchers have no need for access to the underlying work entered into TDM-capable databases, because they or their institutions will necessarily have access to the underlying works.<sup>295</sup> SIIA concurs.<sup>296</sup> Authors Alliance and Library Copyright Alliance explain, however, that “researchers must be able to view enough of the text and images included in the corpus to verify their research methods and research results.”<sup>297</sup> It would be impossible, they show, for researchers to sift through non-digitized films for particular frames revealed to contain certain images, or find and verify hundreds of instances of a particular word in hundreds of different books.<sup>298</sup>

NTIA is, however, persuaded by opponents that the exemption requested should be narrowed such that it expressly excludes commercial use of the accessed works.<sup>299</sup> Proponents have limited their request to researchers affiliated with a nonprofit library, archive, museum, or

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<sup>291</sup> Class 7 Post-Hearing Response of SIIA (SIIA Class 7 Post-Hearing Response) (May 21, 2021), Docket No. 2020-11, at 6, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class%207b%20SIIA%20TDM.pdf>.

<sup>292</sup> AAP Class 7 Post-Hearing Response, at 3.

<sup>293</sup> 2018 Final Rule, 83 Fed. Reg. 54010, 54030.

<sup>294</sup> The AAP’s concern that hacked e-books “can be shared freely on pirate sites” is beside the point. AAP Class 7 Opposition Comments, at 2. If the mere *possibility* of piracy was sufficient to bar an exemption, there would be no Section 1201 exemptions at all. The proposed exemption’s “reasonable security” proviso should afford rightsholders adequate protections against such piracy.

<sup>295</sup> See AAP Class 7 Post-Hearing Response, at 6-7.

<sup>296</sup> SIIA Class 7 Post-Hearing Response, at 7.

<sup>297</sup> AAP Class 7 Post-Hearing Response, at 3.

<sup>298</sup> *Id.*; see also Class 7 Ex Parte Letter of Authors Alliance (Authors Alliance Class 7 Letter) (August 9, 2021), Docket No. 2020-11, at 2, <https://www.copyright.gov/1201/2021/ex-parte/Authors%20Alliance%20Class%207%20Ex%20Parte%20Summary.pdf>.

<sup>299</sup> See, e.g., AAP Class 7 Opposition Comments, at 8.

institution of higher education. Moreover, the Supreme Court has rejected the proposition that Congress, in codifying the “fair use” doctrine, intended a broad presumption against all commercial uses.<sup>300</sup> The Second Circuit has noted, in turn, that “[m]any of the most universally accepted forms of fair use, such as news reporting and commentary, quotation in historical or analytic books, reviews of books, and performances, as well as parody, are all normally done commercially for profit.”<sup>301</sup> Nevertheless, because the gravamen of Petitioners’ request is that circumvention will allow for the expansion of academic knowledge and understanding, and that such research would be undertaken for academic purposes, NTIA supports the inclusion of the modifier “noncommercial” before the terms “research and education” in the exemption recommended here.

**NTIA Recommendation for Class 7(a) (Motion Pictures – Text and Data Mining) and 7(b) (Literary Works – Text and Data Mining):**

In light of the above, NTIA recommends that the Copyright Office recommend the following exemptions for addition to 37 C.F.R. § 201.40(b):

Class 7(a): Motion pictures, where the motion picture is lawfully made and obtained on a DVD protected by the Content Scramble System, on a Blu-ray disc protected by the Advanced Access Content System, or via a digital transmission protected by a technological protection measure,<sup>302</sup> where:

- (1) the circumvention is undertaken by a researcher affiliated with a nonprofit library, archive, museum, or institution of higher education to deploy text and data mining techniques for the purpose of scholarly research and teaching; and
- (2) the researcher uses reasonable security measures to limit access to the corpus of circumvented works only to other researchers affiliated with qualifying institutions for purposes of collaboration or the replication and verification of research findings.

Class 7(b): Literary works, excluding computer programs, distributed electronically and lawfully obtained, that are protected by technological measures that interfere with text and data mining, where:

- (1) the circumvention is undertaken by a researcher affiliated with a nonprofit library, archive, museum, or institution of higher education to deploy text and data mining techniques for the purpose of scholarly research and teaching; and
- (2) the researcher uses reasonable security measures to limit access to the corpus of circumvented works only to other researchers affiliated with qualifying institutions for purposes of collaboration or the replication and verification of research findings.

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<sup>300</sup> See *Campbell*, 510 U.S. at 584.

<sup>301</sup> *Google*, 804 F.3d at 219.

<sup>302</sup> This framing intentionally tracks the language used in the existing exemption set forth in 37 C.F.R. § 201.40(b)(1).

## Class 8 – Audiovisual Works – Accessibility (e-books)

The American Council of the Blind (ACB) and other entities propose to expand the current exemption for the use of assistive technologies by visually impaired persons in connection with electronically distributed literary works (e-books).<sup>303</sup> The current regulatory language applies to literary works, distributed electronically, that are protected by technological measures that either prevent the enabling of read-aloud functionality or interfere with screen readers or other applications or assistive technologies. The proposed expansion of this exemption would amend the language to: (1) update provisions in accordance with new statutory language such as the description of eligible users from “blind or other person with a disability” to “eligible person, as such a person is defined in 17 U.S.C. 121;” (2) expand the description of eligible works to include “literary works and previously published musical works that have been fixed in the form of text or notation;” and (3) eliminate the reference to the price of “mainstream” copies of works . . . and replace this term with a more inclusive phrase such as “market price of an inaccessible copy.”<sup>304</sup> The proponents seek to clarify the current language and the scope of exemption to ensure that those with disabilities are better able to obtain accessible literary works.

**NTIA position:** NTIA recommends granting a renewal of the existing exemption as well as the requested expansions and clarifications.<sup>305</sup>

**Analysis:** The Copyright Office is recommending the extension of the current exemption for accessibility to e-books for the blind and those with similar visual impairments, which is one of the earliest exemptions granted by the Librarian of Congress. Both the extension and expansion are largely unopposed.<sup>306</sup> Since its inception, NTIA has supported this exemption. The proposed changes meet the 1201 requirements and there is sufficient evidence on the record to support these changes.

Many of these proposed changes are necessary to be consistent with recent changes to U.S. law implementing the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled (Marrakesh Treaty),

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<sup>303</sup> Class 8 Petition for New Exemption of American Council of the Blind *et al.* (ACB Class 8 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20American%20Council%20of%20the%20Blind%20et%20al.pdf>. Petitioning on behalf of other groups such as American Council of the Blind, American Foundation for the Blind, National Federation of the Blind, Association for Education and Rehabilitation of the Blind and Visually Impaired, Library Copyright Alliance, Benetch/Bookshare, Hathitrust, Perkins Braille & Talking Book Library.

<sup>304</sup> ACB Class 8 Petition, at 4.

<sup>305</sup> We note that there are two other proposed accessibility related exemptions. Classes 3 and 17 are discussed respectively in their own sections.

<sup>306</sup> Class 8 Opposition Comments of JCCO (JCCO Class 8 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_8\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_8_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf). JCCO do not oppose the renewal and of this exemption and seek only to clarify that the expanded language does not include sound recordings of musical performances as proponents seek to expand to works such as sheet music.

which the U.S. signed in 2019.<sup>307</sup> These proposed changes also include the Chaffee Amendment, codified at 17 USC §121, and the newly adopted section 121A, which pertains to the import and export of works in accessible formats.<sup>308</sup> Changing the language to be consistent with the statute broadens those eligible to make use of the exemption and eliminates inadvertently excluding individuals that are currently not able to access the works according to the record and evidence presented at the hearing.<sup>309</sup> Secondly, adopting the statutory language additionally clarifies that individuals who import or export accessible versions that are not available in the United States do not violate section 1201, further clarifying the scope of this exemption. This will prevent confusion within the marketplace and among these statutory provisions and these regulations.

Next, the expansion to include music written and available in digital form, such as sheet music, is a natural extension of the current exemption. This simply clarifies that while not technically a literary work when it is in fixed digital format this type of work (digital sheet music) should be treated in a similar fashion as e-books to allow circumvention if the work is not otherwise in an accessible format. The proponents clarified that this expansion does not include sound recordings of the music itself. In post-hearing questions, the parties agreed on certain regulatory language that makes it clear that the proposed exemption does not include sound recordings of performances of the work unless a copy of the sound recording is included with the e-book. NTIA supports these clarifications.<sup>310</sup>

Finally, NTIA supports eliminating regulatory wording that is either unclear or that is inappropriate. In this case, the proponents effectively argue that use of “mainstream” copies suggests that accessible versions are outside mainstream and is inappropriate and detracts from the intent of the exemption. Alternative language such as “inaccessible copies” better reflects the purpose of the limitation placed on utilizing the current exemption and does not change the overall 1201 analysis. NTIA concurs and recommends that the Copyright Office modify the exemption accordingly. These changes are highlighted specifically below.

#### **NTIA Recommendation for Class 8 (Accessibility):**

NTIA recommends that the Copyright Office recommend that the Librarian adopt the following exemption for addition to 37 C.F.R. §201.40:

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<sup>307</sup> Marrakesh Treaty, June 30, 2016.

<sup>308</sup> 17 USC §121 (2018).

<sup>309</sup> 17 USC §121 (3) (providing that “eligible person” means an individual who, regardless of any other disability—

(A) is blind; (B) has a visual impairment or perceptual or reading disability that cannot be improved to give visual function substantially equivalent to that of a person who has no such impairment or disability and so is unable to read printed works to substantially the same degree as a person without an impairment or disability; or (C) is otherwise unable, through physical disability, to hold or manipulate a book or to focus or move the eyes to the extent that would be normally acceptable for reading”).

<sup>310</sup> Class 8 Post-Hearing Response, Exemptions to Prohibition Against Circumvention of Technological Measures Protecting Copyrighted Works, (May 14, 2021), <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-8-Joint-Post-Hearing-Response.pdf>.

3) Literary works and previously published musical works that have been fixed in the form of text or notation, distributed electronically, that are protected by technological measures that either prevent the enabling of read-aloud functionality or interfere with screen readers or other applications or assistive technologies:

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

### **Class 9 – Literary Works – Medical Device Data**

Hugo Campos, a member of the Coalition of Medical Device Patients and Researchers (CMPDR), seeks renewal and expansion of the current exemption to for patients to circumvent TPMs to access their own data from medical devices and corresponding personal monitoring systems.<sup>311</sup> Consumer Reports expressed support for the renewal of this exemption.<sup>312</sup> Since petitioner has demonstrated the continuing need for these exemptions, the Copyright Office intends to recommend exemption’s renewal, and the renewal is unopposed, NTIA agrees that renewal of this exemption is justified.<sup>313</sup>

Mr. Campos and other members of CMPDR seek the expansion of the current exemption in several ways: removing the limitation that circumvention can only occur on “wholly or partially implanted devices,” permitting third parties to perform the circumvention at the request of the patient, removing the passive monitoring requirement, and eliminating the language that the use of the exemption does not constitute a violation of applicable law.<sup>314</sup> The proponents preferred language for regulatory text to incorporate all their proposals is as follows:

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<sup>311</sup> Class 9 Petition to Renew a Current Exemption of Coalition of Medical Device Patients and Researchers (Coalition Class 9 Renewal Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Medical%20Devices%20-%20Medical%20Device%20Research%20Coalition.pdf>; 37 C.F.R. §201.40(b)(4).

<sup>312</sup> Class 9 Comments Supporting Renewal of Exemption of Consumer Reports (Consumer Reports Class 9 Comments), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Supp.%20-%20Medical%20Devices%20-%20Consumer%20Reports.pdf>.

<sup>313</sup> See 2020 NPRM, 85 Fed. Reg. 65293, 65299.

<sup>314</sup> The record in different places refers to CMPDR or *members* of CMPDR as petitioners. For simplicity, this Letter in the Class 9 discussion employs the term “proponents” to refer to supporting material for the new proposals from CMPDR or members of CMPDR. Class 9 Initial Comments of Coalition of Medical Device Patients and Researchers (Coalition Class 9 Initial Comments) Docket No. 2020-11, at 3, [https://www.copyright.gov/1201/2021/comments/Class%2009\\_InitialComments\\_Coalition%20of%20Medical%20Device%20Patients%20and%20Researchers.pdf](https://www.copyright.gov/1201/2021/comments/Class%2009_InitialComments_Coalition%20of%20Medical%20Device%20Patients%20and%20Researchers.pdf).

Literary works consisting of compilations of data generated by medical devices or by their corresponding personal monitoring systems, where such circumvention is undertaken by or on behalf of the patient for the sole purpose of lawfully accessing the data generated by their own device or monitoring system.<sup>315</sup>

Proponents argue that patients' need for real-time access to their own medical device data is the same whether they are using an implanted or non-implanted device, and preventing access to health data via TPMs can adversely affect patient care and medical research.<sup>316</sup> Proponents assert that limiting circumvention to passive monitoring wireless transmissions sent by medical devices does not reflect the reality that some medical devices do not transmit data wirelessly (*e.g.*, data stored on an SD card); that there may be more efficient or effective ways for patients to access their medical data from medical devices; and that enabling wireless capabilities to access medical data could put that data and the medical devices at risk from third party intrusions.<sup>317</sup> Proponents also note that restricting a user of the exemption to the individual patient using the device makes the "practical application of an exemption . . . incredibly slim" and that nothing in section 1201 supports such a limitation.<sup>318</sup> Lastly, proponents request removing the reference in the regulatory text to other laws (*e.g.*, the Health Insurance Portability and Accountability Act of 1996) as those laws are about concerns unrelated to copyright law.<sup>319</sup>

The opponents argue that the proponents have failed to establish that they are or are likely to be harmed if the exemption remained unchanged, that the proposed exemption modifications "will negatively impact the thriving marketplace of innovation for mobile health products and services," and would "negate federal and international regulations and guidance to ensure the safety and efficacy of medical devices and laws to protect patient data privacy."<sup>320</sup>

**NTIA Position:** NTIA supports petitioners' proposal to expand the current medical device data exemption. NTIA recommends that the Librarian specify that the exemption permits these activities to be carried out with the assistance of third parties.

**Analysis:** As stated in its 2015 Letter, NTIA believes that making it easier for patients to access their own medical data would not adversely affect the market value for mobile health

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<sup>315</sup> *Id.*

<sup>316</sup> *Id.* at 9-11.

<sup>317</sup> *Id.* at 11.

<sup>318</sup> *Id.* at 11-13.

<sup>319</sup> *Id.* at 13.

<sup>320</sup> Class 9 Opposition Comments of ACT | The App Association (ACT Class 9 Opposition Comments), Docket No. 2020-11, at 2, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_9\\_Opp'n\\_ACT%20The%20App%20Association.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_9_Opp'n_ACT%20The%20App%20Association.pdf)

. The President of ACT | The App Association submitted the organization's opposition comments in Round 2. The organization's president also participated in the Copyright Office hearing for Class 9, but in his role as the Executive Director of the Connected Health Initiative. For simplicity, this Letter employs the term "opponents" in the Class 9 discussion when referring to opposition material on the record.

products and services; and, moreover, it would provide relief from the harm patients experience due to delayed access to their health data associated with the general prohibition on circumvention in section 1201.<sup>321</sup> Proponents have persuasively argued that these same considerations apply to non-implanted medical devices as they do to the currently exempted implanted devices.<sup>322</sup> Proponents have highlighted several examples of adverse effects that are happening now or are likely to occur in the next three years if the exemption is not granted.<sup>323</sup> As NTIA has raised previously, and the Copyright Office has acknowledged, it is not always clear whether the works being accessed under this exemption (compilations of data generated by medical devices or by their personal monitoring systems) are subject to copyright; to the extent that there may be copyrighted works at issue, patient access to their own medical data is likely a fair use.<sup>324</sup> NTIA does not believe that the proposed changes alter this analysis. Further, NTIA is not convinced by opponents' contention that granting the proposed expansions "will negatively impact the ability of app developers to successfully compete in the mobile health marketplace."<sup>325</sup> The opponents raise safety concerns (further addressed below), as well as concerns stemming from potential piracy that the proposal could enable; however, as proponents note, the exemption would continue to be fairly limited to patients being able to access their own medical data from their own devices or monitoring systems.<sup>326</sup> In any event, the rulemaking does not grant parties the permission to commit copyright infringement.<sup>327</sup>

The opponents argue the proposed expansions would undermine medical device and software purveyors' ability to comply with other applicable regulations, and lead to concerns involving safety, efficiency, and patient privacy.<sup>328</sup> While NTIA appreciates that medical devices and data are highly regulated, NTIA's longstanding position is that this exemption process should generally be limited to the consideration of *copyright* issues.<sup>329</sup> Issues related to data privacy, device safety, and other non-copyright concerns can and should be addressed by the appropriate agencies and legal and regulatory regimes as these issues arise. Exemptions granted under the DMCA 1201 rulemaking process do not give users permission to disobey other laws or

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<sup>321</sup> See 2015 NTIA Letter, at 59-60.

<sup>322</sup> See Coalition Class 9 Initial Comments, at 9-10; April 8 Hearing Transcript, Remarks of Keon Zemoudeh, at 546-547.

<sup>323</sup> Coalition Class 9 Initial Comments, at 4-5.

<sup>324</sup> See *id.* at 11.

<sup>325</sup> ACT Class 9 Opposition Comments at 5; April 8 Hearing Transcript, Remarks of Morgan Reed, at 527-528.

<sup>326</sup> Class 9 Reply Comments of Coalition of Medical Device Patients and Researchers (Coalition Class 9 Reply Comments), Docket No. 2020-11, at 5, [https://www.copyright.gov/1201/2021/comments/reply/Class%209\\_Reply\\_Coalition%20of%20Medical%20Device%20Patients%20and%20Researchers.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%209_Reply_Coalition%20of%20Medical%20Device%20Patients%20and%20Researchers.pdf).

<sup>327</sup> To the extent the concern is that granting the proposed exemptions would increase the circulation of circumvention tools and in this way increase the risk of piracy in the commercial marketplace, this concern is addressed by the anti-trafficking provision in section 1201(a)(2) and by the limitations in the modified exemption language itself.

<sup>328</sup> See ACT Class 9 Opposition Comments, at 4-5.

<sup>329</sup> See, e.g., 2015 NTIA Letter, at 62; 2018 NTIA Letter, at 2.

regulatory regimes. Neither the current nor the proposed exemption prevent agencies with the appropriate authority and expertise from regulating medical devices and data. The rulemaking is not—and should not become—a forum to address the particularities of other laws and regulatory regimes unrelated to copyright.<sup>330</sup> NTIA also notes that the proposed exemption would not seem to impose requirements on manufacturers of software-enabled products to take affirmative steps to comply either with the DMCA or other laws or regulations; just as the obligations of a user to comply with other laws and regulations do not change, neither do manufacturer’s obligations under other laws and regulations change.<sup>331</sup>

The opponents further argue that non-passive access to data is akin to hacking, and that it allows more intrusive forms of access that could lead to devices being less secure.<sup>332</sup> However, NTIA is convinced by proponents’ argument that non-passive monitoring is often non-intrusive, as is the case with proponent’s primary example of retrieving data from the SD card of a CPAP machine,<sup>333</sup> and it appears unlikely that granting petitioners’ proposals for non-passive monitoring would compromise the safety and efficiency of medical devices.<sup>334</sup> Also, insofar as there is a concern that the expansion of the exemption would allow for more intrusive access to a broader variety medical devices, compromising safety of these devices and endangering patients, the Librarian in one respect has more recently addressed a comparable concern related to expanding an exemption for the circumvention of TPMs in categories of medical devices. The temporary exemption for security research (computer programs) following the Sixth Triennial Rulemaking limited circumvention to specific categories of devices, including “medical devices designed for whole or partial implantation in patients, as well as corresponding personal monitoring systems.” (the device limitation).<sup>335</sup> In the Seventh Triennial Rulemaking, the

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<sup>330</sup> Discussion on the record included references to the Food and Drug Administration’s (FDA) regulatory authority, and the FDA has responded in this proceeding to note that “an exemption from liability expressly limited to circumvention conducted for the sole purpose of lawfully accessing data generated by a patient’s own device or associated monitoring system, whether or not such device is implanted and/or such access is accomplished through the passive monitoring of existing wireless transmissions, is unlikely to undermine the cybersecurity of affected devices, other than as intentionally undertaken by the patient and as may impact only such patient’s own device.” Letter from Food and Drug Administration to USCO re: Classes 9 and 12, at 2 (Aug. 13, 2021) (2021 FDA Letter), <https://www.copyright.gov/1201/2021/USCO-letters/Classes-9-and-12-Ex-Parte-Meeting-Summary-FDA.pdf>.

<sup>331</sup> NTIA thus agrees with proponents’ comment in this respect: “[w]hether or not it is a violation of copyright law for a patient to circumvent a TPM for a specific purpose is entirely separate from a manufacturer’s obligations under unrelated regulations to include TPMs restricting access to medical data.” Class 9 Coalition Reply Comments, at 4.

<sup>332</sup> See April 8 Hearing Transcript, Remarks of Morgan Reed, at 534-536, 542-543.

<sup>333</sup> See April 8 Hearing Transcript, Remarks of Keon Zemoudeh, at 544-547; see also CMPDR Class 9 Reply Comments, at 5-7.

<sup>334</sup> See April 8 Hearing Transcript, Remarks of Keon Zemoudeh, at 552; see also 2021 FDA Letter, at 2. Noting that proponents’ proposal is unlikely “to undermine or impede efforts to ensure an appropriate degree of cybersecurity for medical devices” whether or not access to a patient’s own data is accomplished through the passive monitoring of wireless transmissions.

<sup>335</sup> 2018 Register’s Recommendation, at 283.

Acting Register recommended, and the Librarian adopted in her final rule, a modification to the security research exemption that removed the device limitation, including for specific categories of medical devices.<sup>336</sup> Of course, the security research exemption supports a different purpose, covers a different “particular class of work,” contains additional requirements, and the removal of the device limitation hinged on that particular record.<sup>337</sup> However, NTIA believes that the Librarian can look to her decision and the Copyright Office’s recommendation in the Seventh Triennial Rulemaking for guidance in the current context as it relates to safety, as there is a similar concern expressed here.<sup>338</sup>

NTIA also supports allowing third party circumvention on behalf of a patient. This expansion would further the utility of the exemption by allowing patients who do not have the technical expertise or tools to circumvent technological protection measures to nonetheless access their own data.<sup>339</sup> In accordance with the Copyright Office’s 2018 Recommendation for repair of certain devices, NTIA recommends at least removing the qualifications from the current exemption that circumvention must be carried out by a patient to address this hurdle to access for noninfringing purposes.<sup>340</sup> NTIA would go further and note that circumvention can be undertaken by or behalf of a patient. As explained in more detail in the discussion of Class 12, NTIA does not believe that section 1201’s anti-trafficking provisions constrain third-party assistance in this context.

Regarding the request to remove the “applicable law” limitation, NTIA discusses a similar issue in more detail in Class 13, and that same substantive analysis applies here. In short, NTIA recognizes the need to alter the current “applicable law” limitation to clarify that this exemption does not export DMCA’s penalties into non-copyright areas or import non-copyright analysis into the DMCA. As noted, exemptions granted under this rulemaking do not give proponents permission to disobey other laws. NTIA therefore recommends removing the “applicable law” limitation from the regulatory text and replacing it with a notice (also in the regulatory text) that the exemption does not obviate the need to follow other laws and regulations. In order to harmonize the regulatory language, NTIA recommends taking the same approach on the “any applicable law” limitations in Classes 9, 12, and Class 13, should the

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<sup>336</sup> *See id.* at 288-289.

<sup>337</sup> *Id.* at 13.

<sup>338</sup> *Id.* at 300 (“Nor does the Acting Register believe that public safety concerns provide an appropriate basis for denying [the removal of the device limitation]. As explained above, while such matters of course are of vital importance, they are within the competence of other agencies and generally are not among the factors considered as part of this rulemaking absent unusual circumstances.”).

<sup>339</sup> Coalition Class 9 Reply Comments, at 12-13.

<sup>340</sup> *See* 2018 Register’s Recommendation, at 222-225. Moreover, NTIA agrees with proponents that there are persuasive reasons to believe that the Unlocking Consumer Choice and Wireless Competition Act should not be read to suggest that Librarian does not have the authority to permit third party circumvention in certain instances absent further congressional action. *See* Coalition Class 9 Reply Comments, at 12.

Librarian grant the requests.<sup>341</sup> NTIA would not object if the reference further mentioned specific laws that may be relevant in this context, such as the Health Insurance Portability and Accountability Act of 1996.

There is one potential aspect of proponents' proposal that NTIA does not support at this time. In their initial petition, proponents referenced "medical *and wellness* devices and corresponding personal monitoring systems."<sup>342</sup> The term "wellness" device (or "medical and wellness" device) does not appear elsewhere in the record, and proponents subsequently do not indicate whether and how this term might differ from "medical device." The term is also not a part of proponents' preferred regulatory language. Given these facts, NTIA does not recommend including the term "wellness" (or "medical and wellness" device) in the exemption should the Librarian decide to adopt part or all of proponents' proposals. At the same time, NTIA cautions that not including a reference to the term should not be seen as limiting the scope of medical devices and corresponding monitoring systems that would be covered under an expanded exemption.

**NTIA Recommendation for Class 9 (Medical Devices):** NTIA recommends modifying the exemption based on proponents' proposals, as modified. Accordingly, NTIA recommends the following exemption language:

Literary works consisting of compilations of data generated by medical devices or by their corresponding personal monitoring systems, where such circumvention is undertaken by or on behalf of a patient for the sole purpose of lawfully accessing the data generated by the patient's own device or monitoring system. This exemption does not obviate the need to comply with all other applicable laws and regulations.

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<sup>341</sup> This could also include the alternative approach to resolving this issue proposed by Rapid7 and amplified by others in the Class 13 discussion. *See* Class 13 Initial Comments of Rapid7 (Rapid7 Class 13 Initial Comments), Docket No. 2020-11, at 2-5, [https://www.copyright.gov/1201/2021/comments/Class%2013\\_InitialComments\\_Rapid7.pdf](https://www.copyright.gov/1201/2021/comments/Class%2013_InitialComments_Rapid7.pdf) (recommending replacement of the "any applicable law" provision with a clarification that the security testing exemption does not void other applicable laws"); *see also* April 8 Hearing Transcript, Remarks of Keon Zemoudeh, at 573 ("We do think that the DOJ's recommendation on adding language about notifying people on having to comply with other laws, we do think that would be a good addition to the language in place of something like having to comply with other laws or lawfully accessing the data. So I believe DOJ's recommendation was to add language requiring – stating that qualification for an exemption is not a safe harbor or defense to liability under other applicable laws. And we think that would do a great job of notifying the public while not adding further penalties under the DMCA.").

<sup>342</sup> Class 9 Petition for New Exemption of Coalition of Medical Device Patients and Researchers (Coalition Class 9 New Exemption Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Medical%20Device%20Research%20Coalition.pdf>.

## Class 10 – Computer Programs – Unlocking

The current exemption for unlocking allows circumvention of certain computing devices (such as cellphones, tablets) for use with alternative wireless telecommunications network.<sup>343</sup> The Competitive Carriers Association (CCA) and the Institute of Scrap Recycling, Inc. (ISRI) each submitted a petition to renew the current exemption.<sup>344</sup> No parties oppose renewing the exemption. NTIA agrees with the Copyright Office’s conclusion in its NPRM that “the conditions that led to adoption of this exemption are likely to continue during the triennial period.”<sup>345</sup> Because petitioner demonstrated the continuing need for these exemptions, and because they were unopposed, NTIA urges, at a minimum, renewal of the existing exemption.

ISRI submitted two petitions for expansion of the current exemption, requesting that it apply to 1) lawfully acquired locked laptop computers, including Chromebooks,<sup>346</sup> and preferably, to 2) all lawfully acquired locked wireless devices, rather than the enumerated list of types of devices in the current exemption (which includes mobile phones, tablets, hotspot devices, and wearables).<sup>347</sup> The latter proposal would cover any devices with cellular connection capabilities that can connect to wireless telecommunications networks, which can include, but are not limited to, desktop computers, Smart TVs, Internet of Things devices, extended reality headsets, and drones. Proponents note that recyclers are increasingly unable to effectively resell wireless devices capable of connecting to a wireless telecommunications network in other markets because they are carrier locked.<sup>348</sup> For example, some laptops with cellular connectivity are now carrier-locked,<sup>349</sup> and other types of devices, including smart TVs, drones, and extended reality headsets are beginning to include cellular capabilities.<sup>350</sup>

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<sup>343</sup> 37 C.F.R. § 201.40(b)(5).

<sup>344</sup> See Class 10 Renewal Petition of Competitive Carriers Association (CCA Class 10 Petition) Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Unlocking%20-%20CCA.pdf>; Class 10 Renewal Petition of Institute of Scrap Recycling Industries, Inc. (ISRI Class 10 Renewal Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Unlocking%20-%20Inst.%20Scrap%20Recycling%20Industries.pdf>.

<sup>345</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65301.

<sup>346</sup> Class 10 Petition for New Exemption, Institute of Scrap Recycling Industries, Inc. #1 (ISRI Class 10 Petition #1) Docket No. 2020-11, at 2, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Inst.%20Scrap%20Recycling%20Industries%20-%201.pdf>.

<sup>347</sup> Class 10 Petition for New Exemption, Institute of Scrap Recycling Industries, Inc. #2 (ISRI Class 10 Petition #2), Docket No. 2020-11, at 2, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Inst.%20Scrap%20Recycling%20Industries%20-%202.pdf>.

<sup>348</sup> Class 10 Initial Comments of Institute of Scrap Recycling Industries, Inc. (ISRI Class 10 Initial Comments), Docket No. 2020-11, at 6, [https://www.copyright.gov/1201/2021/comments/Class%2010\\_InitialComments\\_Institute%20of%20Scrap%20Recycling.pdf](https://www.copyright.gov/1201/2021/comments/Class%2010_InitialComments_Institute%20of%20Scrap%20Recycling.pdf).

<sup>349</sup> *Id.* at 8.

<sup>350</sup> *Id.* at 10–11.

The sole opponent to the expansion of this class, the Motor & Equipment Manufacturers Association (MEMA), argues that expanding the exemption to cover cellular-connected vehicle modules and Electronic Control Units without limitations and safeguards could have a negative impact on consumer safety.<sup>351</sup> Therefore, MEMA requests that any expansion of the unlocking exemption exclude motor vehicles and motor vehicle equipment. MEMA focuses its substantive argument against such expansion entirely on concerns about vehicle safety and environmental regulations, though they also claim that proponents have not provided sufficient evidence and are requesting an exemption that is overly broad.<sup>352</sup>

**NTIA Position:** Consistent with NTIA’s recommendations in 2012, 2015, and 2018, we urge the inclusion in this exemption of all lawfully-acquired devices that connect to wireless networks.

**Analysis:** NTIA has a long history of supporting consumers in their efforts to use their devices on the networks they choose, both in the Section 1201 rulemaking and through proceedings at the Federal Communications Commission.<sup>353</sup> The issue of unlocking wireless devices for use with alternative carriers is, perhaps, one of the longest-running examples of the misuse of the prohibition against circumvention to achieve ends unrelated to copyright. The Copyright Office has recognized the noninfringing nature of carrier unlocking since it first recommended an exemption for the activity in 2006:

There is no evidence in the record of this rulemaking that demonstrates or even suggests that obtaining access to the mobile firmware in a mobile handset that is owned by a consumer is an infringing act. Similarly, there has been no argument or suggestion that a consumer desiring to switch a lawfully purchased mobile handset from one network carrier to another is engaging in

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<sup>351</sup> Class 10 Opposition Comments of MEMA (MEMA Class 10 Opposition Comments), Docket No. 2020-11, at 1, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_10\\_Opp'n\\_The%20Motor%20&%20Equipment%20Manufacturers%20Association%20FINAL.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_10_Opp'n_The%20Motor%20&%20Equipment%20Manufacturers%20Association%20FINAL.pdf).

<sup>352</sup> *Id.* at 2.

<sup>353</sup> See *Fifth Triennial Section 1201 Rulemaking, Recommendations of the National Telecommunications and Information Administration to the Register of Copyrights* (2012 NTIA Letter), at 18, Docket No. 2011-7, [https://www.copyright.gov/1201/2012/Section\\_1201\\_Rulemaking\\_2012\\_Recommendation.pdf](https://www.copyright.gov/1201/2012/Section_1201_Rulemaking_2012_Recommendation.pdf); 2015 NTIA Letter, at 42; 2018 NTIA Letter, at 44; *Petition for Rulemaking of the National Telecommunications and Information Administration: In the Matter of Amendment of Part 20 of the Commission’s Rules and Regulations to Require Certain Providers of Commercial Mobile Radio Services to Unlock Wireless Devices Upon Request*, WT Dkt. No. PRM13WT (filed Sep. 17, 2013), [https://www.ntia.gov/files/ntia/publications/ntia\\_mobile\\_devices\\_unlocking\\_petition\\_09172013.pdf](https://www.ntia.gov/files/ntia/publications/ntia_mobile_devices_unlocking_petition_09172013.pdf); *Letter re: Verizon Request for Declaratory Ruling, or, in the Alternative, for Partial Waiver, Regarding the Handset Locking Rule for C Block Licensees*, WT Dkt. No. 06-150 (filed June 6, 2019), <https://ecfsapi.fcc.gov/file/10606290512037/NTIA%20Ltr%20re%20%20Verizon%20Wireless%20C%20Block%20HandsetLocking%20Rule%20Request.pdf>.

copyright infringement or in activity that in any way implicates copyright infringement or the interests of the copyright owner.<sup>354</sup>

Rather than protecting a copyright interest, the locking of wireless devices to a single carrier is a decision made to enforce a particular business model. This remains true irrespective of the particular type of device on which the software is contained, whether a smartphone, tablet, laptop, or even a device like an extended reality headset. NTIA has repeatedly recommended exemption language that would have included all types of wireless devices, similar to what ISRI is now seeking, and we believe the record of adverse effects to non-infringing uses of such devices has only expanded over time.<sup>355</sup> As noted above, the record shows the number of devices—and device types—in the marketplace capable of connecting to wireless telecommunications networks has continued to increase. Therefore, NTIA believes listing the types of devices that may be unlocked is both unnecessary and too inflexible. Trimming the language to only reference devices that connect to telecommunications network sufficiently and precisely defines this class.

NTIA believes that this proposed class represents one of several opportunities for the Copyright Office to make clear that the Section 1201 rulemaking is not the appropriate venue to address concerns about consumer safety, environmental regulations, or other non-copyright concerns, as we discuss in the introductory section of these recommendations.<sup>356</sup> Further, we disagree with the notion put forward by MEMA that the proposed exemption is overly broad by virtue of the scope of devices to be included.<sup>357</sup> We continue to caution against limiting exemptions based on the types of devices or media on which they are contained, and recommend instead focusing on the copyrighted works at issue and their users.<sup>358</sup>

**NTIA Recommendation for Class 10:** The regulatory text proposed by ISRI<sup>359</sup> is substantively identical to that recommended by NTIA in 2018,<sup>360</sup> and we continue to support this language, or similar language that conforms to a structured template for regulatory text:

Computer programs that enable lawfully acquired wireless devices to connect to a wireless telecommunications network, when circumvention is undertaken solely in order to connect the wireless device to a wireless telecommunications network and such connection is authorized by the operator of such network.

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<sup>354</sup> U.S. Copyright Office, *Section 1201 Rulemaking: Third Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention, Recommendation of the Register of Copyrights* (2018 Register's Recommendation), at 50 (November 2006), [https://cdn.loc.gov/copyright/1201/docs/1201\\_recommendation.pdf](https://cdn.loc.gov/copyright/1201/docs/1201_recommendation.pdf).

<sup>355</sup> See, e.g., 2018 NTIA Letter, at 44.

<sup>356</sup> See *supra* at 5.

<sup>357</sup> MEMA Class 10 Opposition Comments, at 2.

<sup>358</sup> See *supra* at 4.

<sup>359</sup> ISRI Class 10 Initial Comments, at 9.

<sup>360</sup> 2018 NTIA Letter, at 44.

## **Class 11 – Computer Programs – Jailbreaking**

The current exemption for jailbreaking of devices is divided into three parts, and allows for circumvention of:<sup>361</sup>

(6) Computer programs that enable smartphones and portable all-purpose mobile computing devices to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the smartphone or device, or to permit removal of software from the smartphone or device. For purposes of this paragraph (b)(6), a “portable all-purpose mobile computing device” is a device that is primarily designed to run a wide variety of programs rather than for consumption of a particular type of media content, is equipped with an operating system primarily designed for mobile use, and is intended to be carried or worn by an individual.

(7) Computer programs that enable smart televisions to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the smart television.

(8) Computer programs that enable voice assistant devices to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the device, or to permit removal of software from the device, and is not accomplished for the purpose of gaining unauthorized access to other copyrighted works. For purposes of this paragraph (b)(8), a “voice assistant device” is a device that is primarily designed to run a wide variety of programs rather than for consumption of a particular type of media content, is designed to take user input primarily by voice, and is designed to be installed in a home or office.<sup>362</sup>

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<sup>361</sup> For the purposes of this proceeding, “jailbreaking” means “the process of gaining access to the operating system of a computing device . . . to install and execute software that could not otherwise be installed or run on that device, or to remove pre-installed software that could not otherwise be uninstalled.” 2018 Register’s Recommendation, at 163.

<sup>362</sup> 37 C.F.R. § 201.40(b)(6), (7), (8).

At a minimum, NTIA supports renewal of all three parts of this exemption. EFF, New Media Rights, and SFC each submitted a petition to review the current exemption.<sup>363</sup> There are no opponents on the record against renewing the exemption. Because the petitioners demonstrated continuing need for this exemption, and because it was unopposed, NTIA urges the Register to recommend adoption of an exemption that at a minimum includes the previously exempted classes of work and use cases.

EFF and SFC each submitted a petition to expand on the current exemption. EFF proposes to clarify that the portion of the current exemption covering smart televisions “includes computer programs on devices that are primarily designed to display software applications on a television, including applications that stream video delivered via the Internet, where such devices are not physically integrated into a television” (e.g., Roku devices, Amazon Fire TV stick, Apple TV).<sup>364</sup> In its comments, EFF explains that it would like the Librarian to either define “smart television” as including “devices that are primarily designed to display software applications on a screen, including applications that stream video delivered via the Internet, where such devices connect to but are not physically integrated into a display,” or in the alternative, to explicitly expand the exemption to include the contemplated devices.<sup>365</sup> EFF explains that allowing jailbreaking on these TV-connected devices would, as in the context of other similar devices, allow users to run applications not approved by the manufacturer, enable new features contributed by independent developers, and even enhance user privacy, among other things.<sup>366</sup> DVD CCA and AACS LA oppose EFF’s proposal “to the extent it is intended to create an exemption that would permit circumvention of technical protection measures (‘TPMs’) of DVD and Blu-ray players,”<sup>367</sup> and the Joint Creators oppose it on the grounds that “the proposed class would arguably sweep in all ‘over the-top set top boxes’ such as cable boxes and satellite service

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<sup>363</sup> See Class 11 Renewal Petition of Electronic Frontier Foundation (EFF Class 11 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Jailbreaking%20-%20EFF.pdf>; Class 11 Renewal Petition of New Media Rights (New Media Rights Class 11 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Jailbreaking%20-%20New%20Media%20Rights.pdf>; Class 11 Renewal Petition of Software Freedom Conservancy (SFC Class 11 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Jailbreaking%20-%20Software%20Freedom%20Conservancy.pdf>.

<sup>364</sup> Class 11 Initial Comments of Electronic Frontier Foundation (EFF Class 11 Initial Comments), Docket No. 2020-11, at 2, [https://www.copyright.gov/1201/2021/comments/Class%2011\\_InitialComments\\_Electronic%20Frontier%20Foundation.pdf](https://www.copyright.gov/1201/2021/comments/Class%2011_InitialComments_Electronic%20Frontier%20Foundation.pdf).

<sup>365</sup> *Id.* at 2.

<sup>366</sup> *Id.* at 13–14.

<sup>367</sup> Class 11 Opposition Comments of DVD CCA and AACS LA (DVD CCA Class 11 Opposition Comments), Docket No. 2020-11, at ii, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_11\\_Opp'n\\_DVD%20CCA%20and%20AACS%20LA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_11_Opp'n_DVD%20CCA%20and%20AACS%20LA.pdf).

boxes, video game consoles, and disc players that transmit content to TVs.”<sup>368</sup> EFF counters that the proposed “class does not encompass devices that integrate Smart TV functionality into other types of devices such as DVD players, Blu-Ray players, and game consoles, because streaming video from the Internet is not the primary purpose of these devices.”<sup>369</sup> More generally, opponents assert that the proposed exemption is overly broad, that the proposed uses are often infringing, and that the proponents have not shown sufficient harm from the prohibition against circumvention.<sup>370</sup>

Separately, SFC proposes a new exemption to enable the installation of alternative firmware on routers and other networking devices.<sup>371</sup> They explain that “as with other computers, the software on wireless routers—referred to collectively as ‘firmware’ because it is installed in the router’s semi-permanent memory—can be upgraded, extended, and replaced,” and that owners of these devices often find that, for example, the manufacturer has ceased providing security updates, or that they require functionality not built into the manufacturer’s firmware.<sup>372</sup> In a typical case, the goal of proponents is to install alternative software, such as the Open Source OpenWrt onto the router, as opposed to making use of the copyrighted work being protected by the access control.<sup>373</sup> ACT, which is the primary opponent, argues that the uses contemplated in this proposal are not fair use, that the exemption is not narrowly defined, and that the exemption would expose consumers to malware and other harms.<sup>374</sup>

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<sup>368</sup> Class 11 Opposition Comments of Joint Creators (Joint Creators Class 11 Opposition Comments), Docket No. 2020-11, at 3, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_11\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_11_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf).

<sup>369</sup> Class 11 Reply Comments of Electronic Frontier Foundation (EFF Class 11 Reply Comments), Docket No. 2020-11, at 3, [https://www.copyright.gov/1201/2021/comments/reply/Class%2011\\_Reply\\_Electronic%20Frontier%20Foundation.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2011_Reply_Electronic%20Frontier%20Foundation.pdf).

<sup>370</sup> Joint Creators Class 11 Opposition Comments, at 3, 6.

<sup>371</sup> SFC Class 11 Petition, at 2.

<sup>372</sup> Class 11 Initial Comments of Software Freedom Conservancy (SFC Class 11 Initial Comments), Docket No. 2020-11, at 2, [https://www.copyright.gov/1201/2021/comments/Class%2011\\_InitialComments\\_Software%20Freedom%20Conservancy.pdf](https://www.copyright.gov/1201/2021/comments/Class%2011_InitialComments_Software%20Freedom%20Conservancy.pdf).

<sup>373</sup> *Id.* at 3. This raises the question, contemplated in NTIA in the introductory section, as to whether the technological barriers encountered by proponents here necessarily constitute technological protection measures under the statute. A mechanism that simply prevents installation of firmware other than from the manufacturer, similar to the UEFI Secure Boot case recounted in the introduction (*supra* at 5), would not seem to fit the statutory definition because it is not effectively controlling access to a copyrighted work (just preventing the execution of alternative works irrespective of licensing or even copyright status). However, NTIA is persuaded that some routers and other networking equipment likely do contain access controls under Section 1201, and that the contemplated users may need to circumvent them to achieve the desired noninfringing purposes (either to install the alternative firmware, or at a minimum to determine from the preinstalled firmware how to go about successfully completing installation).

<sup>374</sup> Class 11 Opposition Comments of ACT | The App Association (ACT Class 11 Opposition Comments), Docket No. 2020-11, at 2–5,

**NTIA Position:** NTIA supports the adoption of both proposals to expand the jailbreaking exemption. To promote simplicity and clarity in the regulatory language, NTIA recommends explicitly adding video streaming devices to the smart television portion of the exemption, rather than attempting to define “smart television” to include those devices.

**Analysis:** The request to expand the exemption to also include TV-connected devices that essentially perform the same functions (and often run the same operating systems) as the “smart” portion of a smart television serves as a paradigmatic example of the perils of conditioning an exemption on the device or medium on which a class of work is contained. Users of Rokus, Fire Sticks, Apple TVs, and similar devices are undertaking nearly identical activities to those who prefer the built-in computing functionalities of smart televisions, and are likely to have identical needs for circumventing the relevant access controls. Proponents offer a number of such examples, including jailbreaking to “connect a variety of game controllers and joysticks,” “add a web browser,” or “include support for an external broadcast TV tuner” on the Apple TV.<sup>375</sup> Given the similarity in the relevant works and functionalities to those found in smart televisions, we are unpersuaded by opponent arguments that “jailbreaking video streaming devices does not meet the standards set in case law and by the Copyright Office in rulemakings to qualify as a non-infringing use.”<sup>376</sup> Given that the Copyright Office has determined it will presumptively recommend the existing smart television portion of this exemption—which has been in effect since 2015—for renewal, and in light of the fact that the proposal is not meant to extend to DVD players, game consoles, or other devices that are different in software and functionality from video streaming devices, adoption of this proposal is prudent.<sup>377</sup>

Where the EFF proposal corrects an anachronistic exclusion from the existing jailbreaking exemption, the SFC petition extends it to include a somewhat different set of use cases requiring circumvention of access controls on software that is less known to followers of the Section 1201 rulemaking. Yet even here, the noninfringing uses harmed by the prohibition against circumvention are familiar, and focus on extending and improving device functionality beyond what was provided by the manufacturer. Given the most common way to accomplish these goals is to load an alternative, Open Source software on the networking equipment, the uses contemplated here are clearly noninfringing.<sup>378</sup> NTIA also finds the proposed class, which is limited to firmware on routers and other networking equipment, is sufficiently narrow in scope as it defines a particular class of work (networking firmware) and user (users of lawfully-acquired networking devices seeking to install alternative firmware).

**NTIA Recommendation for Class 11:** In an effort to simplify the resulting regulatory text, we recommend either consolidating the three parts of the jailbreaking exemption into a single paragraph covering computing programs enabling execution of lawfully obtained software

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[https://www.copyright.gov/1201/2021/comments/opposition/Class\\_11\\_Opp'n\\_ACT%20The%20App%20Association.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_11_Opp'n_ACT%20The%20App%20Association.pdf).

<sup>375</sup> EFF Class 11 Initial Comments, at 13–14.

<sup>376</sup> ACT Class 11 Opposition Comments, at 3.

<sup>377</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65301.

<sup>378</sup> SFC Class 11 Initial Comments, at 2–3.

applications on all covered types of devices, or restructuring the text to fit a structured exemption pattern. At a minimum, implementation could also be accomplished by editing the existing text in the following fashion:

(6) Computer programs that enable smartphones and portable all-purpose mobile computing devices to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the smartphone or device, or to permit removal of software from the smartphone or device. For purposes of this paragraph (b)(6), a “portable all-purpose mobile computing device” is a device that is primarily designed to run a wide variety of programs rather than for consumption of a particular type of media content, is equipped with an operating system primarily designed for mobile use, and is intended to be carried or worn by an individual.

(7) Computer programs that enable smart televisions and TV-connected devices primarily designed to display video downloaded from the Internet to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the smart television or TV-connected device.

(8) Computer programs that enable voice assistant devices to execute lawfully obtained software applications, where circumvention is accomplished for the sole purpose of enabling interoperability of such applications with computer programs on the device, or to permit removal of software from the device, and is not accomplished for the purpose of gaining unauthorized access to other copyrighted works. For purposes of this paragraph (b)(8), a “voice assistant device” is a device that is primarily designed to run a wide variety of programs rather than for consumption of a particular type of media content, is designed to take user input primarily by voice, and is designed to be installed in a home or office.

(9) Computer programs that enable routers and other networking equipment to function, where circumvention is accomplished for the purpose of installing alternative software on the equipment.

## **Class 12 – Computer Programs – Repair**

Proponents seek renewal and expansion of the existing repair exemption, which currently includes two specific types of device-embedded software. First, the Librarian has authorized circumvention of TPMs in motorized land vehicles (under certain conditions) for repair of these vehicles.<sup>379</sup> Also, the current repair exemption permits circumvention of TPMs in certain devices for repair, diagnosis and maintenance such as smartphones, home appliances, and HVAC

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<sup>379</sup> 37 C.F.R. § 201.40(b)(9).

systems.<sup>380</sup> Multiple parties sought renewal of both exemptions.<sup>381</sup> As the Copyright Office noted in its NPRM, petitioners explained the continued need for these exemptions and there was no opposition.<sup>382</sup> NTIA agrees that renewal conditions have been met.

In addition, various parties sought expansion of the existing exemptions. Some seek new device-specific exemptions: Summit Imaging, Inc. requests an exemption allowing circumvention of “technological measures applied to software programs and data files that are contained in and control the functioning of a computer-controlled medical device for purposes of diagnosis, maintenance, or repair of such a device.”<sup>383</sup> Transtate Equipment Company requests an exemption for software and data files that control the functions of, or store data relating to the functioning of, lawfully acquired medical systems or devices, when undertaken by or on behalf of their owners or lessees to enable the systems’ or devices’ unfettered diagnosis, repair, and maintenance.<sup>384</sup> iFixit and Public Knowledge seek an exemption permitting circumvention of TPMs to repair video game consoles and replace damaged hardware.<sup>385</sup> Other petitioners seek broader exemptions: The Electronic Frontier Foundation (EFF) seeks expansion of the current exemption to enable circumvention of all access controls applied to software and data compilations for the purpose of noninfringing repair, diagnoses, or modification of any software-enabled device,<sup>386</sup> and iFixit and Repair.Org seek a similar exemption covering computer

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<sup>380</sup> 37 C.F.R. § 201.40(b)(10). In this context, “maintenance” means “the servicing of the device or system in order to make it work in accordance with its original specifications and any changes to those specifications authorized for that device or system” and “repair” means “the restoring of the device or system to the state of working in accordance with its original specifications and any changes to those specifications authorized for that device or system.”

<sup>381</sup> See 2020 NPRM, 85 Fed. Reg. 65293, 65299, n. 85 (listing petitions seeking renewal of exemption for repair of motorized land vehicles); *id.* at 65300, n. 97 (listing petitions seeking renewal of exemption for repair of smartphones, home appliances, and home systems).

<sup>382</sup> *Id.* at 65299-65300.

<sup>383</sup> Class 12 Petition for New Exemption of Summit Imaging, Inc. (Summit Class 12 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Summit%20Imaging.pdf>.

<sup>384</sup> Class 12 Petition for New Exemption of Transtate Equipment Company, Inc. (Transtate Class 12 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Transtate%20Equipment%20Co..pdf>.

<sup>385</sup> Class 12 Petition for New Exemption of iFixit and Public Knowledge (iFixit/Public Knowledge Class 12 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20iFixit%20&%20Public%20Knowledge.pdf>.

<sup>386</sup> Class 12 Petition for New Exemption of Electronic Frontier Foundation (EFF Class 12 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Electronic%20Frontier%20Foundation%20-%20202.pdf>.

programs that control any lawfully acquired devices to permit the diagnosis, repair, maintenance, or modification of such devices.<sup>387</sup>

**NTIA position:** NTIA recommends expansion of the current exemption to include circumvention of TPMs for the diagnosis, maintenance, and repair of all software-enabled devices, machines, and systems (collectively “devices” herein) for lawful modification that is necessary for a repair or maintenance, and for modifications of software regarding the functionality of a device. NTIA also recommends that the Librarian specify that the exemption permits these activities to be carried out with the assistance of third parties.<sup>388</sup>

**Analysis:** Petitioners and their supporters assert various arguments in favor of expanding the repair exemption, either for all software-enabled devices or specific classes of such devices. Proponents emphasize that many devices previously devoid of electronic components now routinely rely on computer processors and software for their operation, and that this evolution has curtailed users’ and third parties’ ability to repair or modify such devices – particularly because original equipment manufacturers (OEMs) typically utilize TPMs to limit access to embedded software.<sup>389</sup> The Auto Care Association, which seeks an exemption covering circumvention of TPMs for “computer programs that control any lawfully acquired devices to permit the diagnosis, repair, maintenance, or modification of those devices,”<sup>390</sup> observes that the principles underlying the existing exemptions “apply to any consumer product,” noting that “[i]t surely was lawful to repair earlier generations of such products with mechanical controls.”<sup>391</sup>

Several commenters assert that the current approach, which exempts circumvention for repairs to specifically named devices, substantially burdens noninfringing users, who must seek new exemptions for each new device as OEMs add capabilities that rely on software. Commenters likewise note that the current piecemeal approach also results in distinctions with no apparent basis in copyright law – for example, the current “smartphone” exemption might allow circumvention to facilitate the repair of an iPhone, but not an iPad.<sup>392</sup> In one commenter’s

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<sup>387</sup> Class 12 Petition for New Exemption of iFixit and Repair.Org (iFixit/Repair.Org Class 12 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Repair.org%20&%20iFixit.pdf>.

<sup>388</sup> See generally 2018 Register’s Recommendation, at 222-25 (explaining recommendation to remove language indicating that repairs must be “undertaken by the [device’s] authorized owner”).

<sup>389</sup> See, e.g., Class 12 Initial Comments of Transtate Equipment Company, Inc. (Transtate Class 12 Initial Comments), Docket No. 2020-11, at 4-5, [https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_Transtate%20Equipment.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_Transtate%20Equipment.pdf).

<sup>390</sup> Class 12 Initial Comments of Auto Care Association (ACA Class 12 Initial Comments), Docket No. 2020-11, at 1, [https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_Auto%20Care%20Association.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_Auto%20Care%20Association.pdf).

<sup>391</sup> *Id.*

<sup>392</sup> Class 12 Initial Comments of iFixit and Repair.Org (iFixit/Repair.Org Class 12 Initial Comments), Docket No. 2020-11, at 2,

words, “[t]here is no difference between boats and land vehicles when it comes to copyright interests and the noninfringing purpose of repair.”<sup>393</sup> More broadly, commenters provide detailed material regarding the reasons why a wide range of software-enabled devices cannot be repaired or modified absent circumvention of TPMs, the type of TPMs used, and the ways in which these TPMs impair noninfringing uses. Thus, in contrast to the record developed in 2018, which the Register found did not provide an adequate basis for expanding device-specific exemptions to cover all software-enabled devices,<sup>394</sup> the current record reflects that all such devices share critical features with regard to repair, that the TPMs used to protect them from repair also share common traits, and that the factors otherwise relevant to the Librarian’s consideration also favor expansion.

NTIA supports expansion of the repair exemption to allow circumvention of TPMs – by a device’s owner or an authorized third party – for the purpose of the diagnosis, maintenance, and repair of software-enabled devices, for lawful modification that is necessary for a repair or maintenance, and for modifications of software regarding the functionality of a device. Moreover, NTIA recommends that these activities be able to be carried out with the assistance of third parties, as requested by some of the proponents. In 2018, the Acting Register removed language indicating that repairs to motor vehicles needed to be “undertaken by the authorized owner” to qualify for an exemption from section 1201’s circumvention ban.<sup>395</sup> The rationale undergirding this determination applies with equal force to other software-enabled devices. NTIA reiterates its position stated in the Seventh Triennial Rulemaking that third-party circumvention does not always implicate the anti-trafficking provision in section 1201. Here, the proposal would allow for third party use of tools at the direction of the device owner for repair and modification at the direction of a device’s owner. As NTIA noted in 2018 in the context of vehicle repair, such a use “is not primarily ‘for the purpose of circumventing a technological measure’ that protects copyrights; the circumvention here is incidental.”<sup>396</sup> The proposals seek to enable all the benefits of ownership consistent with the DMCA’s anti-trafficking provisions. NTIA appreciates that the Copyright Office has been sympathetic to concerns previously expressed about the lack of third-party assistance, and NTIA believes that “it is a logical extension of the Copyright Office’s own analysis to say that Congress did not intend to apply the anti-trafficking provisions to third-party circumvention” when an exemption would allow device owners to receive the necessary assistance to exercise their ownership rights.<sup>397</sup>

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[https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_iFixit%20and%20Repair%20Association.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_iFixit%20and%20Repair%20Association.pdf).

<sup>393</sup> *Id.* at 8.

<sup>394</sup> See 2018 Register’s Recommendation, at 191-93.

<sup>395</sup> 2018 Final Rule, 83 Fed. Reg. 54010, 54022.

<sup>396</sup> 2018 NTIA Letter, at 58, *citing* 17 U.S.C. § 1201(a)(2)(A), (b)(1)(A).

<sup>397</sup> See *id.* at 58, n. 298 (referencing the Copyright Office’s Section 1201 Study that “there are strong reasons to conclude that Congress did not intend to apply the manufacturing bar to exemption beneficiaries from producing their own circumvention tools for personal use”). U.S. Copyright Office, *Section 1201 of Title 17, Report of the Register of Copyrights* (June 2017), at 54, <https://www.copyright.gov/policy/1201/section-1201-full-report.pdf>.

The expansion NTIA supports here would advance important policy goals recognized by President Biden, the Federal Trade Commission (FTC), and the Copyright Office alike. In his recent Executive Order addressing competition, President Biden underscored the systemic benefits of competition and the threats posed by economic consolidation.<sup>398</sup> The Executive Order specifically noted the harms arising from “unfair anticompetitive restrictions on third-party repair or self-repair of items, such as the restrictions imposed by powerful manufacturers that prevent farmers from repairing their own equipment.”<sup>399</sup> The FTC addressed such concerns at length in a May 2021 “Report to Congress on Repair Restrictions.”<sup>400</sup> Restrictions on competition in the repair marketplace have the unsurprising effect of increasing costs to consumers: the record indicated that repairs by independent entities could be as much as 70 percent less expensive than similar repairs made by manufacturers.<sup>401</sup> Such restrictions also impair small businesses offering repair and modification of software-enabled devices. This burden “may fall more heavily on communities of color and lower-income communities,” because “[m]any Black-owned small businesses are in the repair and maintenance industries, and difficulties facing small businesses can disproportionately affect small businesses owned by people of color.”<sup>402</sup> In contrast, the FTC concluded that there was “scant evidence to support manufacturers’ justifications for repair restrictions.”<sup>403</sup>

Moreover, the Copyright Office itself has acknowledged that repair activities are often protected against claims of infringement by multiple provisions of copyright law, including the fair use doctrine and section 117.<sup>404</sup> For example, “the fundamental purpose of any repair is to preserve or restore the functionality of a software-enabled device so that it may continue to be used,” undercutting concern that circumvention of TPMs for the purpose of facilitating repair could violate property rights.<sup>405</sup> The Office has echoed proponents’ concerns regarding the proliferation of software-enabled devices and its effect on third parties’ ability to make repairs,<sup>406</sup> concluding that “a properly-tailored exemption for repair activities could alleviate concerns regarding section 1201’s effect on consumers’ ability to engage in legitimate activities that did not previously implicate copyright law, without creating a material risk of harm to the

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<sup>398</sup> The White House, *Executive Order on Promoting Competition in the American Economy* (July 9, 2021), <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/>.

<sup>399</sup> *Id.*

<sup>400</sup> Federal Trade Commission, *Nixing the Fix: An FTC Report to Congress on Repair Restrictions* (May 2021) (*Nixing the Fix*), [https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing\\_the\\_fix\\_report\\_final\\_5521\\_630pm-508\\_002.pdf](https://www.ftc.gov/system/files/documents/reports/nixing-fix-ftc-report-congress-repair-restrictions/nixing_the_fix_report_final_5521_630pm-508_002.pdf).

<sup>401</sup> *Id.* at 40 (citing record evidence regarding medical equipment repair).

<sup>402</sup> *Id.* at 3.

<sup>403</sup> *Id.* at 6.

<sup>404</sup> See U.S. Copyright Office, *Software-Enabled Consumer Products: A Report of the Register of Copyrights* (Dec. 2016) at 33, 39-41 (Software Report); *United States Copyright Office, Section 1201 of Title 17: A Report of the Register of Copyrights* (June 2017) at 90 (Section 1201 Report).

<sup>405</sup> See Software Report, at 40; Section 1201 Report, at 90.

<sup>406</sup> See Section 1201 Report, at 88 (quoting Repair Association comments citing the rise of software-enabled devices and noting that migration’s implication for repair).

market for or value of copyrighted works.”<sup>407</sup> The Office likewise has recognized the value of a broad exemption, recommending that Congress adopt a repair exemption that is not limited to specific technologies or devices, as any such limitation “would likely be soon outpaced by technology.”<sup>408</sup>

Petitioners have argued persuasively that, absent circumvention of the TPMs at issue, over the next three years users are or are likely to be adversely affected in their ability to make noninfringing uses of copyrighted works within the class. Petitioners and their supporters detail the use of a wide variety of TPMs employed across a range of devices with the purpose or effect of curtailing repair or modification by entities other than the OEM or its authorized agents. Summit Imaging notes that OEMs “restrict access to diagnostic software and data files in their medical imaging systems through the use of access codes, passwords, keys, or other similar technological measures.”<sup>409</sup> The Electronic Freedom Foundation (EFF) and Georgetown University’s Intellectual Property and Information Policy Clinic (IPIPC) offer detailed descriptions of how TPMs such as passwords and encrypted, locked, and compressed firmware are used to control access to digital cameras, “smart” litterboxes, printers, microcontroller debuggers, camera stabilizers, e-readers, robotic companions, and radios.<sup>410</sup> iFixit and Repair.Org describe other TPMs, including software requiring that replacement parts be specific to the device or manufacturer and manufacturers’ use of calibration software that must be connected in order for a user to receive diagnostic information.<sup>411</sup>

Petitioners are similarly persuasive in demonstrating that these TPMs inhibit noninfringing use of the works at issue. EFF states that it is not aware of *any* category of software-enabled device that has escaped application of TPMs.<sup>412</sup> Commenters note that TPMs preclude repair and tinkering both by a device’s owner and by independent service providers.<sup>413</sup> While opponents cite the availability of repair services offered by OEMs and their authorized agents, the ban on circumvention thwarts third parties’ efforts to compete against incumbents,

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<sup>407</sup> *Id.* at 92.

<sup>408</sup> Section 1201 Report, at 95.

<sup>409</sup> Class 12 Initial Comments of Summit Imaging, Inc. (Summit Class 12 Initial Comments), Docket No. 2020-11, at 2, [https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_Summit%20Imaging.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_Summit%20Imaging.pdf).

<sup>410</sup> Class 12 Initial Comments of Electronic Frontier Foundation and Intellectual Property and Information Policy Clinic (EFF/IPIPC Class 12 Initial Comments), Docket No. 2020-11, at 3-13, [https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_Electronic%20Frontier%20Foundation.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_Electronic%20Frontier%20Foundation.pdf).

<sup>411</sup> Class 12 Initial Comments of iFixit and Repair.Org (iFixit/Repair.Org Class 12 Initial Comments), Docket No. 2020-11, at 5-10, [https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_iFixit%20and%20Repair%20Association.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_iFixit%20and%20Repair%20Association.pdf).

<sup>412</sup> EFF/IPIPC Class 12 Initial Comments, at 13.

<sup>413</sup> Summit Class 12 Initial Comments, at 3.

and thus perpetuates market concentration.<sup>414</sup> This result is contrary to the statute’s purpose: as the Copyright Office has stated, “section 1201 was not intended to facilitate manufacturers’ use of TPMs to facilitate product tying or to achieve a lock-in effect under which consumers are effectively limited to repair services offered by the manufacturer.”<sup>415</sup> Further, the record reflects that in some cases manufacturer-provided repair services are not available at all, because the manufacturer has discontinued a product and terminated support.<sup>416</sup>

Petitioners demonstrate that these limitations on third-party repair harm consumers and independent service providers alike. iFixit and Repair.Org, for example, note that “[c]onsumers who depend on software-enabled devices like motorized wheelchairs, CPAP machines, hearing aids, blood glucose monitors, and even breast milk pumps could find themselves without a much needed device while they wait for manufacturers’ repair services that may be exorbitantly expensive or significantly delayed, if they are available at all.”<sup>417</sup> Similar problems arise in the context of industrial devices, supervisory control and data acquisition (SCADA) systems, and elsewhere.<sup>418</sup> Transtate warns that, absent circumvention, independent entities that service medical equipment are being driven out of the market, which is already dominated by OEMs.<sup>419</sup>

Petitioners also show that the TPMs at issue are impeding noninfringing uses. In particular, commenters show that access to software to facilitate repair and/or modification would likely constitute fair use. First, the purpose and character of the use – namely, for repair and modification – supports a “fair use” determination. As the Acting Register stated in the 2018 Recommendation, “because the fundamental purpose of repair is to restore the functionality of a device so that it may be used, ‘repair supports – rather than displaces – the purpose of the

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<sup>414</sup> See, e.g., Class 12 Opposition Comments of Joint Creators (Joint Creators Class 12 Opposition Comments), Docket No. 2020-11, at 3, [https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2012%20Comments%20Repair%2002%2009\(13130595.1\).pdf](https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2012%20Comments%20Repair%2002%2009(13130595.1).pdf); Class 12 Opposition Comments of Equipment Dealers Assn. *et al.* (EDA Class 12 Opposition Comments), Docket No. 2020-11, at 10-12, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_12\\_Opp'n\\_Equipment%20Dealers%20Association%20and%20Associated%20Equipment%20Distribution.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_12_Opp'n_Equipment%20Dealers%20Association%20and%20Associated%20Equipment%20Distribution.pdf); Class 12 Opposition Comments of Alliance for Automotive Innovation (Auto Innovators Class 12 Opposition Comments), Docket No. 2020-11, at 4, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_12\\_Opp'n\\_Auto%20Innovators.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_12_Opp'n_Auto%20Innovators.pdf).

<sup>415</sup> Section 1201 Report, at 92.

<sup>416</sup> Public Knowledge and iFixit, for example, state that Microsoft instituted a policy in 2019 under which it would no longer offer repair services for game consoles that were no longer in active production. Class 12 Initial Comments of Public Knowledge and iFixit, (Public Knowledge and iFixit Class 12 Initial Comments), Docket No. 2020-11, at 4, [https://www.copyright.gov/1201/2021/comments/Class%2012\\_InitialComments\\_Public%20Knowledge%20and%20iFixit.pdf](https://www.copyright.gov/1201/2021/comments/Class%2012_InitialComments_Public%20Knowledge%20and%20iFixit.pdf); see also Transtate Class 12 Initial Comments, at 6 (“[M]any owners have older equipment that OEMs no longer support because the OEMs have deemed the equipment to have reached end of commercial life, and hence the equipment is considered obsolete.”).

<sup>417</sup> iFixit/Repair.Org Class 12 Initial Comments, at 18.

<sup>418</sup> *Id.* at 19.

<sup>419</sup> Transtate Class 12 Initial Comments, at 10 and n. 41.

embedded programs.”<sup>420</sup> Modification of a device is also consistent with a “fair use” finding under the first prong, because such modification is “transformative.”<sup>421</sup> The second “fair use” factor also supports a fair use determination, because the work at issue – computer data files that control the operation, maintenance, and repair of devices – is functional, not expressive.<sup>422</sup> So too, the third factor is likely to support a fair use determination, because in many cases those seeking to repair or modify software-enabled devices generally will only require access to a small fraction of the entire software package associated with the device.<sup>423</sup> Finally, the fourth factor supports “fair use,” because the effect of circumvention on the market for or value of the work is likely to be minimal. The software at issue is, by definition, installed on a device that the customer purchases. In most or all cases, there is no stand-alone market for such software.<sup>424</sup> Thus, circumvention is unlikely to have any effect on any market for the copyrighted work itself. Indeed, to the extent circumvention has any market effect with respect to the software-enabled devices at issue, it is likely to *enhance* the market for and value of such devices by reducing the cost associated with repairing or modifying them and expanding the field of entities capable of performing such repairs and modifications.<sup>425</sup>

In addition to the likelihood that repair and modification will constitute fair use, uses facilitated by broadening the current exemption are likely to be noninfringing under section 117’s “essential step” provision.<sup>426</sup> As commenters note, access to computer programs and data files embedded in software-enabled devices is an essential step in servicing, maintaining, and repairing such equipment.<sup>427</sup> Some opponents argue that section 117(a)(1) does not apply because customers are licensees, not owners, of the software embedded in their devices.<sup>428</sup> As the Copyright Office has recognized, however, the courts have adopted a fact-based approach to assessing the “ownership” of software installed on a device, and this analysis does not end with

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<sup>420</sup> 2018 Register’s Recommendation, at 203; *quoting* Software Report, at 38-41.

<sup>421</sup> *See, e.g.*, EFF/IPIPC Comments, at 14.

<sup>422</sup> *See, e.g., Lexmark International, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 536 (6th Cir. 2004); *Sony Computer Entertainment, Inc. v. Connectix Cor.*, 203 F.3d 596, 603 (9th Cir. 2000) (“[T]he fair use doctrine preserves public access to the ideas and functional elements embedded in copyrighted computer software programs.”).

<sup>423</sup> *See, e.g.*, Summit Class 12 Initial Comments, at 6 (“The computer programs and data files involved [in servicing medical equipment] are but a small portion of the entire software package used to operate and service medical imaging devices and are integrated into the machine.”).

<sup>424</sup> *See, e.g.*, EFF/IPIPC Class 12 Initial Comments, at 15; Transtate Class 12 Initial Comments, at 17-18.

<sup>425</sup> To the extent opponents argue that circumvention will diminish their own share of the repair market, this is not a cognizable interest under Section 1201. As the Copyright Office concluded in its 2017 Section 1201 Report, “virtually all agree that section 1201 was not intended to facilitate manufacturers’ use of TPMs to facilitate product tying or to achieve a lock-in effect under which consumers are effectively limited to repair services offered by the manufacturer.”). Section 1201 Report, at 92.

<sup>426</sup> 17 U.S.C. § 117(a)(1).

<sup>427</sup> *See, e.g.*, Summit Class 12 Initial Comments, at 7.

<sup>428</sup> *See* Joint Content Creators Class 12 Opposition Comments, at 5; Class 12 Opposition Comments of Philips North America, LLC (Philips Opposition Comments), Docket No. 2020-11, at 11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_12\\_Opp'n\\_Philips%20North%20America.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_12_Opp'n_Philips%20North%20America.pdf).

the seller’s characterization of the buyer’s right as a “license.” Rather, where a device owner has the right to use embedded software indefinitely, without significant use restrictions, that individual is likely to “own” the software for Copyright Act purposes, even when the seller purports merely to have licensed use by the buyer.<sup>429</sup>

Finally, uses facilitated by an expanded exemption are likely to be noninfringing under section 117(c) of the Copyright Act, under which “it is not an infringement for the owner or lessee of a machine to make or authorize the making of a copy of a computer program if such copy is made solely by virtue of the activation of a machine that lawfully contains an authorized copy of the computer program, for purposes only of maintenance or repair of that machine.”<sup>430</sup>

Section 1201’s statutory factors also broadly favor expansion of the exemption to cover circumvention with respect to computer programs that are contained in and control the functioning of a lawfully acquired device for the diagnosis, maintenance, and repair of such device, for lawful modification that is necessary for a repair or maintenance, and for modifications of software regarding the functionality of a device. First, expanding options for repair of software-enabled devices will enhance the copyrighted work’s availability for use. Thus, as the Register noted in 2018, “[t]he first statutory factor favors an exemption, as the proposed uses [*i.e.*, repair of home appliances and smartphones] extend the useful life of the devices by facilitating repair and restoration of device functionality.”<sup>431</sup> This is equally true here. Similarly, the Acting Register’s 2018 conclusion that the second and third statutory factors “weigh slightly in favor of a determination that TPMs have an adverse effect on [repair]” applies to devices beyond home appliances and smartphones – “consumers and independent repair services” likely “rely on shared observations about device malfunctions” in many different spheres.<sup>432</sup> The fourth statutory factor – the effect of circumvention on the market for or value of the copyrighted work – also favors an exemption here. As several commenters note, the relevant work here is the software itself, not the device on which it is installed. In most or all cases, there is no stand-alone market for the software. Thus, circumvention likely will not affect the marketplace at all. Moreover, the fourth factor would favor an exemption even if the relevant market were the market for the device itself. As discussed above, the proliferation of options for those seeking to repair their devices – and the salutary effects of greater competition in the repair marketplace – will enhance the value of the devices at issue by increasing their longevity, and thus their utility to prospective purchasers.

Opponents contend that any exemption for purposes of facilitating repair or modification of software-enabled devices must be cabined by a requirement that circumvention does not

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<sup>429</sup> See generally 2018 Register’s Recommendation, at 21; *Vernor v. Autodesk*, 621 F.3d 1102, 1111 (9<sup>th</sup> Cir. 2010) (holding that a software user is a licensee only when the copyright owner (1) specifies that the user is granted a license, (2) significantly restricts the user’s ability to transfer the software, and (3) imposes notable use restrictions); *Krause v. Titleserv, Inc.*, 402 F.3d 119 (2d Cir. 2005) (modification of software to debug and add new features was “essential step” in software’s utilization).

<sup>430</sup> 17 U.S.C. § 117(c).

<sup>431</sup> 2018 Register’s Recommendation, at 221.

<sup>432</sup> *Id.*

constitute a violation of other applicable law.<sup>433</sup> NTIA continues to believe that this requirement is unnecessary and unwarranted.<sup>434</sup> The proposed exemption does not obviate the need to comply with all other applicable laws and regulations. For example, a party modifying a medical device would be obliged to do so in a manner consistent with FDA mandates, irrespective of the Section 1201 exemption. As the Copyright Office has concluded, “non-copyright related concerns, such as public safety, . . . are better addressed through laws or regulations outside of the Copyright Act.”<sup>435</sup> NTIA thus opposes the addition of an “illegality” carve-out for the repair/modification exemption, in line with the approach NTIA takes on substantially the same issue in Classes 9 and 13, and instead recommends adding an appropriate notice in the regulatory text.

NTIA also is unpersuaded by claims that TPMs are necessary to ensure that devices are not repaired or modified by untrained or incompetent services, endangering users.<sup>436</sup> As mentioned above, the Biden Administration favors increased competition in the repair markets. Moreover, opponents have not shown that repair or modification by an OEM or its agent is any safer than repair or modification by a third party. The FTC’s May 2021 report rejected claims that independent or third-party repair and modification posed prohibitive safety risks. It observed that manufacturers generally had failed to produce data showing that injuries are tied to repairs performed by device owners and third parties and had not “provided factual support for their statements that authorized repair persons are more careful or that individuals or independent repair shops fail to take appropriate safety precautions . . . .”<sup>437</sup> “[A]dvocates for the right to repair,” on the other hand, “submitted evidence that consumers are generally satisfied with repairs made by independent repair shops.”<sup>438</sup> Further, to the extent that medical devices, automobiles, or other classes of equipment are subject to non-copyright laws or regulations governing who may service them, those requirements fall outside the scope of this proceeding. Agencies such as the FDA and the Environmental Protection Agency are equipped to impose and enforce such requirements irrespective of whether users are free to circumvent TPMs for copyright purposes.

Several opponents claim that circumvention for purposes of repair or modification of DVD players, Blu-Ray players, and gaming consoles will expose the content accessed by such

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<sup>433</sup> See, e.g., EDA Class 12 Opposition Comments, at 9; 2021 FDA Letter, at 1 (observing that opponents of the proposed exemption have expressed concerns regarding potential impacts to health and safety).

<sup>434</sup> See 2018 NTIA Letter, at 78-79 (“Nothing in this 1201 proceeding or in the exemptions the Librarian will promulgate affect a party’s responsibility to comply with other laws.”).

<sup>435</sup> See Section 1201 Report, at 95.

<sup>436</sup> See Philips Class 12 Opposition Comments, at 9; Auto Innovators Class 12 Opposition Comments, at 7; Class 12 Opposition Comments of Medical Imaging & Technology Alliance (MITA Class 12 Opposition Comments), Docket No. 2020-11, at 3,

[https://www.copyright.gov/1201/2021/comments/opposition/Class\\_12\\_Opp'n\\_Medical%20Imaging%20&%20Technology%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_12_Opp'n_Medical%20Imaging%20&%20Technology%20Alliance.pdf).

<sup>437</sup> *Nixing the Fix*, at 28.

<sup>438</sup> *Id.* at 38.

devices to piracy.<sup>439</sup> NTIA is not persuaded by this argument. The exemption proponents seek is limited to repair and modification of the device itself, and thus would not permit circumvention for the purpose of unlawfully accessing or copying specific content. Nor is there any reason why access undertaken to repair or modify a device would necessarily facilitate reproduction of content found on the device or associated media. Indeed, after considering the same arguments raised here, the FTC found that “at present, the assertion of IP rights does not appear to be a significant impediment to independent repair.”<sup>440</sup>

Similarly, NTIA is not persuaded by claims that allowing circumvention for purposes of repair and modification of software-enabled devices will threaten user privacy.<sup>441</sup> Opponents do not clearly show how the limited exemption at issue here would risk exposing sensitive information. Nor have they explained why a device’s owner could not ensure (*e.g.*, via contract) that third parties do not collect or share any such information accessed while repairing or modifying a device.

### **NTIA Recommendation for Class 12 (Computer Programs – Repair):**

In light of these arguments, NTIA recommends that the Librarian adopt the following language to replace existing exemptions set out in 37 C.F.R. § 201.40(b)(9) and (10):

Computer programs that are contained in and control the functioning of a lawfully acquired device, machine, or system when circumvention is for: the diagnosis, maintenance, and repair of such device, machine, or system; lawful modification that is necessary for a repair or maintenance of such device, machine, or system; or for modifications of software regarding the functionality of such device, machine, or system. This exemption applies to diagnosis, maintenance, repair, and modification by the device, machine, or system’s owner or a third party authorized by the owner. This exemption does not obviate the need to comply with all other applicable laws and regulations.

### **Class 13 – Computer Programs – Security Research**

The current security research exemption allows for circumvention of:

(b)(11)

(i) Computer programs, where the circumvention is undertaken on a lawfully acquired device or machine on which the computer program operates, or is undertaken on a computer, computer system, or computer network on which the computer program operates

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<sup>439</sup> See, *e.g.*, Joint Creators Class 12 Opposition Comments, at 2-3, 12-15; MITA Class 12 Opposition Comments at, 3.

<sup>440</sup> *Nixing the Fix*, at 24.

<sup>441</sup> See, *e.g.*, Class 12 Opposition Comments of ACT | The App Association (ACT Class 12 Opposition Comments), Docket No. 2020-11, at 3, 5, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_12\\_Opp'n\\_ACT%20The%20App%20Association.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_12_Opp'n_ACT%20The%20App%20Association.pdf); Auto Innovators Class 12 Opposition Comments, at 7.

with the authorization of the owner or operator of such computer, computer system, or computer network, solely for the purpose of good-faith security research and does not violate any applicable law, including without limitation the Computer Fraud and Abuse Act of 1986.

(ii) For purposes of this paragraph (b)(11), “good-faith security research” means accessing a computer program solely for purposes of good-faith testing, investigation, and/or correction of a security flaw or vulnerability, where such activity is carried out in an environment designed to avoid any harm to individuals or the public, and where the information derived from the activity is used primarily to promote the security or safety of the class of devices or machines on which the computer program operates, or those who use such devices or machines, and is not used or maintained in a manner that facilitates copyright infringement.<sup>442</sup>

Several organizations and individuals, including security researchers, submitted petitions to renew the exemption.<sup>443</sup> The petitioners presented information showing there is a continuing need for the exemption.<sup>444</sup> Consumer Reports submitted comments supporting the exemption’s renewal.<sup>445</sup> The Copyright Office found no meaningful opposition on the record to renew the current exemption.<sup>446</sup> NTIA agrees with the Copyright Office’s conclusion that for this exemption “the conditions that led to adoption of this exemption are likely to continue during the next triennial period.”<sup>447</sup> Because the petitioners demonstrated the continuing need for these exemptions, and because they were unopposed, NTIA urges the adoption of an exemption that, at minimum, includes the previously exempted class of work and use cases.

Two petitions seek to modify the current security research exemption. Professor J. Alex Halderman, the Center for Democracy & Technology, and the U.S. Technology Policy Committee of the Association for Computing Machinery, filed a petition to remove several

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<sup>442</sup> 37 C.F.R. § 201.40(b)(11).

<sup>443</sup> Class 13 Petition to Renew Exemption of J. Alex Halderman, *et al.* (Halderman Class 13 Renewal Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Security%20Research%20-%20Halderman,%20CDT,%20ACM.pdf>; Class 13 Petition to Renew Exemption of Professor Matt Blaze and Professor Steven Bellovin (Blaze & Bellovin Class 13 Renewal Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Security%20Research%20-%20Blaze%20&%20Bellovin.pdf>; Class 13 Petition to Renew Exemption of MEMA (MEMA Class 12 Renewal Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%20Security%20Research%20-%20MEMA.pdf>. In the context of discussing a separate exemption, another party also expressed support for the security research exemption. Coalition Class 9 Renewal Petition, at 4.

<sup>444</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65300.

<sup>445</sup> Class 13 Reply Comments of Consumer Reports (Consumer Reports Class 13 Reply Comments), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Supp.%20-%20Security%20Research%20-%20Consumer%20Reports.pdf>.

<sup>446</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65300.

<sup>447</sup> *Id.* at 65301.

limitations in the current exemption (Halderman Petition).<sup>448</sup> The Software Freedom Conservancy (SFC) filed a petition to “clarify that the definition of ‘good faith security research’ . . . includes good-faith testing, investigation, and/or correction of privacy issues (including flaws or functionality that may expose personal information) and permits the owner of the device to remove software or disable functionality that may expose personal information” (SFC Petition).<sup>449</sup> The Free Software Foundation, HackerOne, Rapid7, Consumer Reports, and GitHub submitted supportive comments to varying extents and focusing on particular petitions or aspects of those petitions.<sup>450</sup> The U.S. Department of Justice’s Computer Crime and Intellectual Property Section (CCIPS) also submitted comments contributing its views on the proposals.<sup>451</sup>

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<sup>448</sup> Class 13 Petition for New Exemption of J. Alex Halderman, *et al.* (Halderman Class 13 New Exemption Petition), Docket No. 2020-11, at 2-4, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20J.%20Alex%20Halderman%20et%20al.pdf>. As described by the Copyright Office, petitioners seek removal of: “(1) The requirement that circumvention be undertaken on a ‘lawfully acquired device or machine on which the computer program operates’ and ‘not violate any applicable law’; (2) both instances of the term ‘solely’ (i.e., ‘solely for the purpose of good-faith security research’ and ‘solely for purposes of good-faith testing, investigation, and/or correction of a security flaw or vulnerability’); and (3) the requirement that the information derived from the activity be used ‘primarily to promote the security or safety of the class of devices or machines on which the computer program operates, or those who use such devices or machines, and is not used or maintained in a manner that facilitates copyright infringement.’” 2020 NPRM, 85 Fed. Reg. 65293, 65307 (citing Halderman Class 13 New Exemption Petition, at 3) (quotation marks in original). Petitioners here request similar changes as those sought in the 2018 rulemaking.

<sup>448</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65307.

<sup>449</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65307 (citing Class 13 Petition for New Exemption of Software Freedom Conservancy (SFC Class 13 Petition), Docket No. 2020-11, at 2, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Software%20Freedom%20Conservancy%20-%20202.pdf>).

<sup>450</sup> See Class 13 Initial Comments of Free Software Foundation, Inc. (FSF Class 13 Initial Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class%2013\\_InitialComments\\_Free%20Software%20Foundation.pdf](https://www.copyright.gov/1201/2021/comments/Class%2013_InitialComments_Free%20Software%20Foundation.pdf); Class 13 Initial Comments of HackerOne (HackerOne Class 13 Initial Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class%2013\\_InitialComments\\_HackerOne.pdf](https://www.copyright.gov/1201/2021/comments/Class%2013_InitialComments_HackerOne.pdf); Class 13 Initial Comments of Rapid7 (Rapid7 Class 13 Initial Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class%2013\\_InitialComments\\_Rapid7.pdf](https://www.copyright.gov/1201/2021/comments/Class%2013_InitialComments_Rapid7.pdf); Consumer Reports Class 13 Reply Comments; Class 13 Reply Comments of GitHub (GitHub Class 13 Reply Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/reply/Class%2013\\_Reply\\_GitHub.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2013_Reply_GitHub.pdf). Cybersecurity and data analytics company Rapid7 in particular submitted helpful alternative approaches that may address some of the concerns raised in the Halderman and SFC petitions. Rapid7 Class 13 Initial Comments at 2-8.

<sup>451</sup> Class 13 Reply Comments of Department of Justice (DOJ Class 13 Reply Comments), Docket No. 2020-11, at 4, [https://www.copyright.gov/1201/2021/comments/reply/Class%2013\\_Reply\\_Department%20of%20Justice.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2013_Reply_Department%20of%20Justice.pdf).

ACT -- The App Association, BSA -- The Software Alliance, DVD CCA and AACCS LA, JCCO,<sup>452</sup> MEMA, and SIIA oppose the petitions on several grounds.<sup>453</sup>

**NTIA Position:** NTIA recommends an exemption that largely advances the proposals in the Halderman Petition, as further described below.<sup>454</sup> In line with its 2018 submission, NTIA agrees with CCIPS that “while the DMCA was enacted to serve the important goal of protecting technological measures and thereby bolstering protection for the exclusive rights granted by copyright, it was not designed to ensure compliance with other laws unrelated to copyright. It is neither the most efficient nor most appropriate tool for doing so.”<sup>455</sup>

NTIA is also strongly supportive of privacy-related research activities within the current good-faith security research exemption. NTIA, however, does not recommend modifying the current regulatory language to address the SFC Petition. NTIA believes that the current exemption already covers the privacy-related research activities referenced in the participants’ post-hearing May 14, 2021 letter, of which SFC and some opponents were signatories (participants’ post-hearing letter).<sup>456</sup> As a result of this development in the record, NTIA at this time believes it is appropriate in this particular instance for the Register in its Recommendation and the Librarian when issuing final rules to adopt this understanding into their guidance. Furthermore, NTIA recommends that the Register and the Librarian note that the activities referenced in the participants’ post-hearing letter do not encompass the totality of privacy-related research activities that are permitted with the good-faith security research exemption. Because NTIA believes the good-faith security research exemption already encompasses the listed

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<sup>452</sup> Class 13 Opposition Comments of MPA (MPA Class 13 Opposition Comments), Docket 2020-11, at 1, [https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2013%20Comments%20Security%20Research%20%2002%2009\(13130401.1\).pdf](https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2013%20Comments%20Security%20Research%20%2002%2009(13130401.1).pdf).

<sup>453</sup> Generally, opponents believe that petitioners have not shown sufficient support for any of the proposed modifications. More specific concerns are addressed throughout this section.

<sup>454</sup> Both in 2015 and 2018, NTIA did not include a definition of “good-faith security research” in its proposed regulatory text. NTIA does not introduce such a definition in its proposed regulatory text in this rulemaking, but understands that the proposals in this rulemaking are different than the 2018 proposals (e.g., there is no proposal to remove the “controlled environment” limitation). As such, NTIA in this rulemaking operates under the assumption that the regulatory text will maintain a definition for good-faith security research (if the exemption is at least renewed).

<sup>455</sup> DOJ Class 13 Reply Comments, at 4; see 2018 NTIA Letter, at 73 (“NTIA also agrees with the view of the Department of Justice’s Computer Crime and Intellectual Property Section (CCIPS) that ‘the DMCA is not the sole nor even the primary legal protection preventing malicious tampering with [devices such as voting machines or motorized land vehicles], or otherwise defining the contours of appropriate research.’”) (citing Letter from John T. Lynch, Jr., Chief, U.S. Department of Justice, to Regan Smith, Register of Copyrights, at 3 (June 28, 2018) (2018 CCIPS Letter) [https://www.copyright.gov/1201/2018/USCO-letters/USDOJ\\_Letter\\_to\\_USCO.pdf](https://www.copyright.gov/1201/2018/USCO-letters/USDOJ_Letter_to_USCO.pdf)).

<sup>456</sup> Class 13 Post-Hearing Letter of Participants (Participants’ Class 13 Post-Hearing Letter), Docket No., 2020-11, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-13-Joint-Post-Hearing-Response.pdf>.

activities in the participants’ post-hearing letter, NTIA’s discussion below focuses primarily on the Halderman Petition, except where otherwise noted.

**Analysis:** Good-faith security research is critical to address threats of vital national, economic, and societal interest. As highlighted in this rulemaking, the threats that security researchers are analyzing are not hypotheticals; they are “real and persistent.”<sup>457</sup> The importance of such research continues to increase given the “the ubiquity of software in modern life.”<sup>458</sup> Security research often takes place in educational settings, but it is not limited to purely academic environments.<sup>459</sup> NTIA explained in its 2015 submission that “it is essential that security researchers have the ability to conduct necessary research in order to identify and notify publishers and the public *before* the vulnerabilities lead to massive breaches or exploitations.”<sup>460</sup> NTIA continues to believe that supporting an inclusive security research exemption that provides

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<sup>457</sup> See Class 13 Initial Comments of J. Alex Halderman, *et al.*, (Halderman Class 13 Initial Comments), Docket No. 2020-11, at 8, [https://www.copyright.gov/1201/2021/comments/Class%2013\\_InitialComments\\_J.%20Alex%20Halderman.%20Center%20for%20Democracy%20&%20Technology.%20and%20U.S.%20Technology%20Policy%20Committee%20of%20the%20Association%20for%20Computing%20Machinery.pdf](https://www.copyright.gov/1201/2021/comments/Class%2013_InitialComments_J.%20Alex%20Halderman.%20Center%20for%20Democracy%20&%20Technology.%20and%20U.S.%20Technology%20Policy%20Committee%20of%20the%20Association%20for%20Computing%20Machinery.pdf); Participants’ Class 13 Post-Hearing Letter, at 33-34 (“Good-faith security research and testing are matters of national security policy. Without robust security testing, bad actors can exploit vulnerabilities in national computer programs to the detriment of the United States and its citizens.”); HackerOne Class 13 Initial Comments, at 2 (“We live in an era of stunning security failures and breakneck innovation. Bad actors can now easily obtain the tools they need to steal our most precious resource: our information – health records, financial data, and private communication between friends and family to name a few. The stakes could not be higher. Security is everyone’s responsibility.”); DOJ Class 13 Reply Comments, at 2 (“[T]he Department [of Justice] is keenly aware of the harms that can result from exploitation of technological vulnerabilities in software, as well as the benefits that legitimate security research provides to the government and the public by identifying vulnerabilities in software, devices, and networks and defending such systems from criminal exploitation.”).

<sup>458</sup> Halderman Class 13 Initial Comments, at 8 (adding that “[o]ur world continues to run on software. Software underlies nearly every aspect of modern life—from digital devices that we interact with on a daily—or even hourly—basis, to the public infrastructure that runs our everyday lives. Software underlies the World Wide Web, vehicles, home appliances, our elections, and our life-saving medical devices.”); *Id.* (“The pandemic has also created a new atmosphere of opportunity for malicious actors as more people are working from home and increasingly dependent on digital applications for everyday services.”) (citing Interpol, “INTERPOL report shows alarming rate of cyberattacks during COVID-19” (Aug. 4, 2020), <https://www.interpol.int/en/News-and-Events/News/2020/INTERPOL-report-shows-alarming-rate-of-cyberattacks-during-COVID-19>; GitHub Class 13 Reply Comments, at 2, (“Just the open source dependencies in the software supply chain number in the millions.”).

<sup>459</sup> GitHub Class 13 Reply Comments, at 2 (“Not everyone who contributes to the safety and security of software is a professor at a prestigious university. Important contributions to security come not only from academia, but also from those working in enterprises—and from a large community of civic-minded independent researchers who understand the broader impacts of software security, even if not for their day job.”).

<sup>460</sup> 2015 NTIA Letter, at 73 (internal citation omitted) (emphasis in original).

certainty to security researchers will ultimately lead to more good-faith security research and serve the public interest in significant ways.<sup>461</sup>

The proposed class includes at least some copyrighted works protected by technological protection measures.<sup>462</sup> The record demonstrates that the uses envisioned under the modified good-faith security research exemption are noninfringing uses, and in particular fair uses.<sup>463</sup> As in the Seventh Rulemaking, where many of the proposals requested here were also sought, NTIA believes “that the uses described are similar or identical to those allowed by the current security research exemption.”<sup>464</sup>

The fair use statutory factors are not exhaustive and no one factor is automatically and always dominant over others, as they must be analyzed in relation to each other and in the specific context in which they are raised.<sup>465</sup> Under the first factor, the purpose and character of

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<sup>461</sup> See generally 2018 NTIA Letter, at 71-84; 2015 NTIA Letter, at 71-89.

<sup>462</sup> Halderman Class 13 Initial Comments, at 11-13.

<sup>463</sup> *Id.* at 14-17. Although proponents in the Halderman Petition did not discuss the applicability of Section 117 of Title 17 in this rulemaking, NTIA notes that Section 117 may continue to provide a basis for noninfringing uses under this section in some instances, although NTIA understands that the Acting Register in 2018 determined that the record back then was insufficient for the Acting Register to recommend an exemption on these grounds. See 2018 Register’s Recommendation, at 291-92 (“While the ownership analysis provided by [petitioner] may well be accurate as to some categories of software-enabled devices, he offered no evidence that would enable the Acting Register to reach that conclusion with respect to such devices generally.”); see also 2018 NTIA Letter, at 74; 2015 NTIA Letter, at 74.

<sup>464</sup> 2018 NTIA Letter, at 74 (noting that “[i]n 2010 and 2015 the Register and Librarian concluded that security research (in a variety of forms) is a fair use. See 2010 Final Rule, 75 Fed. Reg. at 43833; 2015 Final Rule, 80 Fed. Reg. at 65956.”); Halderman Class 13 Initial Comments, at 14-15 (“This fair use analysis relates to all the requested modifications because the current limitations restrict good-faith security researchers’ noninfringing activities. Except where noted, the fair use factors apply in the same or substantially similar ways for each of the good-faith security research uses that would be permitted if the modifications to the existing exemption were granted. While it is difficult to offer a specific infringement analysis for each individual use, all of the uses are consistently under the banner of fair use and therefore support the modification of this exemption since they will not result in copyright infringement. The proposed exemption does not seek to insulate activities that go beyond security research.”) (internal footnotes and citations omitted).

<sup>465</sup> See *Campbell*, 510 U.S. at 578 (“Nor may the four statutory factors be treated in isolation, one from another. All are to be explored, and the results weighted together, in light of the purposes of copyright.”) (internal citations omitted); *Am. Geophysical Union v. Texaco, Inc.*, 60 F.3d 913, 956 (2d Cir. 1994) (interpreting *Campbell* as “[a]pparently abandoning the idea that any factor enjoys primacy.”); See also *Google LLC v. Oracle Am., Inc.*, 141 S.Ct. 1183, 1197 (2021) (“In applying this provision, we, like other courts, have understood that the provision’s list of factors is not exhaustive (note the words ‘include’ and ‘including’), that the examples it sets forth do not exclude other examples (note the words ‘such as’), and that some factors may prove more important in some contexts than in others.” See also *Campbell*, 510 U.S. at 577; *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 560, (1985); *Leval, Toward a Fair Use Standard*, 103 HARV. L. REV. 1105, 1110 (1990) (*Leval*) (“The factors do not represent a score card that promises victory to the winner of the majority”) (quotation marks in original); *id.* at 1197-98 (“The language of § 107, the “fair use” provision, reflects its judge-made origins . . . . That background, as well as modern courts’ use of the doctrine, makes clear that the concept is flexible, that

the use remain the same as they did in 2018, when the Copyright Office and the Librarian found that activities under the good-faith security research exemption are likely to be transformative.<sup>466</sup> Indeed, NTIA believes that modifying the security research exemption to address many of its current limitations will help bring about more good-faith security research (and more effective research as well) by bringing more certainty to research, teaching, criticism, scholarship, commentary, and news reporting.<sup>467</sup> Security research supports a vital public interest in, among other things, promoting the development of safer devices, as well as the safety of the digital environment against critical threats, which are sometimes enabled by malicious actors. That the use could be commercial does not negate a finding of fair use here.<sup>468</sup> Under the second factor, the copyrighted works at issue continue to be the same under the proposed modification (computer programs used to operate machines, devices or systems), and therefore “are likely to fall on the functional rather than creative end of the spectrum.”<sup>469</sup>

Under the third factor, even when security researchers may have to copy part or all of the copyrighted work at issue, the third factor can tilt in favor of fair use when the copying is for a transformative purpose and the user copies only what was necessary for that purpose.<sup>470</sup> The fourth factor likely does not weigh against fair use, or, at the very least, does not eliminate a finding of fair use when all factors are analyzed together in the context for this proposed exemption. Some of the activities here, as has been recognized previously, lead to harms that are not cognizable under the fourth factor or copyright in general (*e.g.*, reputational harm to a product if security vulnerabilities are discovered).<sup>471</sup> Moreover, the Supreme Court has indicated

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courts must apply it in light of the sometimes-conflicting aims of copyright law, and that its application may well vary depending upon context. Thus, copyright's protection may be stronger where the copyrighted material is fiction, not fact, where it consists of a motion picture rather than a news broadcast, or where it serves an artistic rather than a utilitarian function.”) (internal citations omitted).

<sup>466</sup> See Halderman Class 13 Initial Comments, at 15 (citing 2018 Register’s Recommendation, at 294).

<sup>467</sup> The fair use statute, 17 U.S.C. § 107, explicitly recognizes these activities as prototypical examples of fair uses. See Halderman Class 13 Initial Comments, at 15 (“The additional proposed activities are once again of the same purpose and character; removal of the Use Limitations would merely ensure that security researchers would not be chilled as they engage in scientific dialogue, classroom teaching and other scholarship, activities long established in Section 107 to be transformative in nature. Thus, the first factor weighs heavily in favor of fair use, and each limitation should be removed because they restrict noninfringing uses.”).

<sup>468</sup> See *Campbell*, 510 U.S. at 579 (“[T]he goal of copyright, to promote science and arts, is generally furthered by the creation of transformative works. Such works thus lie at the heart of the fair use doctrine’s guarantee of breathing space within the confines of copyright, [ . . . ] and the more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.”) (internal citation omitted).

<sup>469</sup> Halderman Class 13 Initial Comments, at 15-16 (citing 2018 Register’s Recommendation, at 295-96).

<sup>470</sup> Even if the third factor were to disfavor fair use, the Acting Register in 2018 also recognized that that factor is “not accorded significant weight where functional elements of a program cannot be investigated without some intermediate reproduction.” Halderman Class 13 Initial Comments, at 16 (citing 2018 Register’s Recommendation, at 296).

<sup>471</sup> 2018 Register’s Recommendation, at 296; see also, Halderman Class 13 Initial Comments, at 20 (“After conducting this kind research, Prof Halderman and other researchers simply seek to publish code

that “market harm is a matter of degree, and the importance of this [fourth] factor will vary, not only with the amount of harm, but also with the relative strength of the showing on the other factors.”<sup>472</sup> A more recent decision has noted that “potential loss of revenue is not the whole story” to analyzing the fourth factor, and that public benefits that the copyright will produce can be taken into account.<sup>473</sup> The Copyright Office and the Librarian should consider these dynamics, as applicable, insofar as they help shape the determination of the fourth factor under the proposed modifications. The Copyright Office and the Librarian should also consider whether, even if the fourth factor tilts against fair use, the full analysis weighs in favor of fair use given the other fair use factors and the specific conditions that petitioners have identified are present in the security research world.<sup>474</sup>

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snippets in their research to highlight and discuss the vulnerabilities they have identified—not to reuse, resell, or otherwise repurpose the software. Even if the publication had some impact on the potential market—such as by dissuading election administrators from purchasing services from vendors that produce vulnerable election software—that would not be the kind of market effect protectable by copyright law.”).

<sup>472</sup> *Campbell*, 510 U.S. at 590, n. 21.

<sup>473</sup> *Google*, 141 S. Ct. 1183 at 1206 (“Further, we must take into account the public benefits the copying will produce. Are those benefits, for example, related to copyright’s concern for the creative production of new expression? Are they comparatively important, or unimportant, when compared with dollar amounts likely lost (taking into account as well the nature of the source of the loss)? *Cf. MCA, INC. v. Wilson*, 677 F.2d 180, 183 (C.A.2 1981) (calling for a balancing of public benefits and losses to copyright owner under this factor). We do not say that these questions are always relevant to the application of fair use, not even in the world of computer programs. Nor do we say that these questions are the only questions a court might ask. But we do find them relevant here in helping to determine the likely market effects of Google’s reimplementation.”).

<sup>474</sup> NTIA emphasizes that it does not advocate that any users in this class engage in illegal behavior. This rulemaking cannot grant permission for users in this class to abstain from the need to follow any other law. In this particular context, NTIA questions whether it is reasonable to assume that users in this class will likely engage in widespread illegal behavior, such as obtaining devices unlawfully, when such evidence has not been presented on the record (the opposite is true – proponents have stressed and given examples of the caution good faith security researchers take to comply with the law) and proponents have asserted legal ambiguities in the area of ownership. In 2018, the Acting Register, in the context of the fair use analysis, did not remove the “lawfully acquired” provision and noted that “acquiring a device in violation of law would weigh heavily against a fair use finding, as it is plainly conduct that, were it to become widespread, would adversely affect the software copyright owner’s potential market.”) *See* 2018 Register’s Recommendation, at 298 (citing *Campbell*, 510 U.S. at 590). The Acting Register found in 2018 that the fourth factor weighed in favor of fair use subject to that limitation. *Id.* However, the allegations presented back then (and now) were speculative about the likelihood of users in this class engaging in such behavior. Consequently, NTIA is curious whether the analysis can just assume widespread illegal behavior in the abstract, or whether there needs to be at least some showing beyond speculation or mere assertion that the alleged illicit conduct will materialize in this class in such a way that it provides a reasonable basis to conclude that the conduct will likely be widespread. *Cf.* 4 Patry on Copyright § 10:154 (2021) (“Although insubstantial uses by themselves are insufficient to tip the fourth factor in the copyright owner’s favor, if the use is of a type which, if widespread, would result in substantial harm, this fact should be taken into account. At the same time, the mere assertion that others

Proponents assert that several provisions in the current exemption adversely affect or are likely to adversely affect users of this class of work. As to the Halderman Petition, opponents generally argue that proponents have failed to meet their burden, that the Librarian already rejected many of these proposals in 2018, that the underlying rationale for these rejections has not changed and that the current temporary exemption properly balances equities, that in some cases the Copyright Office issued administrative guidance to address similar concerns presented in this rulemaking, that the proposed class is overbroad, and that the Librarian should strive to follow similar language found in the statutory exemptions.<sup>475</sup> Other arguments against the proposals include alleged diminished protections for software developers, as well as compromising the technology associated with the protection of copyrighted works in DVDs and Blu-Ray Discs.<sup>476</sup> As with its submission in 2018, NTIA believes that proponents have made

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might engage in similar uses should be insufficient to raise a credible inference of widespread similar use: reasonable grounds for such an inference must be presented; otherwise, genuinely insubstantial market harms are given undue weight.”) (internal footnote omitted). Furthermore, the temporary good-faith security research exemption is not the only law or regulation pertaining to the legality of acquiring devices or addressing illegal behavior that could be considered possible. *See* Halderman Class 13 Initial Comments, at 4 (“Our proposed modifications largely preserve the existing definition of ‘good faith security research,’ which categorically excludes any conduct that amounts to or facilitates infringement. Moreover, our proposed modifications do not change the applicability of other existing legal remedies that are available to protect the rights of copyright holders. Our proposed modifications will simply eliminate ambiguities with the existing exemption that creates uncertainty for security researchers.”).

<sup>475</sup> *See* Class 13 Opposition Comments of ACT | The App Association (ACT Class 13 Opposition Comments), Docket No. 2020-11, at 2-4, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_13\\_Opp'n\\_ACT%20The%20App%20Association.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_13_Opp'n_ACT%20The%20App%20Association.pdf); Class 13 Opposition Comments of Software Alliance (Software Alliance Class 13 Opposition Comments), Docket 2020-11, at 3-6, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_13\\_Opp'n\\_BSA%20The%20Software%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_13_Opp'n_BSA%20The%20Software%20Alliance.pdf); Class 13 Opposition Comments of SIIA (SIIA Class 13 Opposition Comments), Docket No. 2020-11, at 3-5, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_13\\_Opp'n\\_Software%20and%20Information%20Industry%20Association.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_13_Opp'n_Software%20and%20Information%20Industry%20Association.pdf); Class 13 Opposition Comments of DVD CCA and AACS (DVD CCA Class 13 Opposition Comments), Docket No. 2020-11, at 3-6, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_13\\_Opp'n\\_DVD%20CCA%20and%20AACS%20LA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_13_Opp'n_DVD%20CCA%20and%20AACS%20LA.pdf); Class 13 Opposition Comments of Joint Creators (Joint Creators Class 13 Opposition Comments), Docket No. 2020-11, at 3-6, [https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%202013%20Comments%20Security%20Research%20%2002%2009\(13130401.1\).pdf](https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%202013%20Comments%20Security%20Research%20%2002%2009(13130401.1).pdf); Class 13 Opposition Comments of MEMA (MEMA Class 13 Opposition Comments), Docket No. 2020-11, at 1-2, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_13\\_Opp'n\\_The%20Motor%20&%20Equipment%20Manufacturers%20Association%20FINAL.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_13_Opp'n_The%20Motor%20&%20Equipment%20Manufacturers%20Association%20FINAL.pdf).

<sup>476</sup> ACT Class 13 Opposition Comments, at 3 (“The proposed new exemption for security testing effectively removes all protections afforded to software developers to protect their code, their business, and their customers.”); DVD CCA Class 13 Opposition Comments, at 3-4.

their case that a modified exemption largely incorporating the proposals presented here would be sufficiently narrow and focused for the purposes of Section 1201.<sup>477</sup>

In response to SFC’s initial petition and Round 1 comments, opponents question SFC’s interpretation of the statutory exemption for “protection of personally identifying information” in 17 U.S.C. § 1201(i) and expressed uncertainty about the scope of SFC’s proposal.<sup>478</sup> Opponents further argue that the proposal is broader than what is permitted under the current temporary security research exemption,<sup>479</sup> that the security research exemption seeks to address ambiguities in section 1201(j) while the proposal focuses on ambiguities in section 1201(i),<sup>480</sup> and that the harms appeared more theoretical than real, arguing that “consumers can choose the ecosystem that works best for them as both closed and open-source systems are flourishing.”<sup>481</sup>

NTIA addresses the various proposals in turn.<sup>482</sup>

**The “Any Applicable Law” Provision:** NTIA is persuaded that users in this class are adversely affected or likely to be adversely affected by the language in the current exemption that circumvention “does not violate any applicable law, including without limitation the Computer Fraud and Abuse Act of 1986.”<sup>483</sup> Proponents argue that the current regulatory language “mak[es] the entire body of federal, state, and local law a trigger for liability under Section 1201,” which raises an uncertainty when undertaking security research since it is not always evident when liability under these other laws would apply, and inappropriately brings non-copyright law considerations into the exemption and exports DMCA liability to other legal regimes.<sup>484</sup>

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<sup>477</sup> 2018 NTIA Letter, at 75.

<sup>478</sup> Joint Creators Class 13 Opposition Comments, at 6-7.

<sup>479</sup> MEMA Class 13 Opposition Comments, at 1-2.

<sup>480</sup> Class 13 Opposition Comments of BSA | The Software Alliance (BSA Class 13 Opposition Comments), Docket No. 2020-11, at 7, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_13\\_Opp'n\\_BSA%20The%20Software%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_13_Opp'n_BSA%20The%20Software%20Alliance.pdf).

<sup>481</sup> ACT Class 13 Opposition Comment, at 3.

<sup>482</sup> Proponents in various places raise First Amendment constitutional concerns, and in particular reference the decision of the District Court for the District of Columbia in *Green v. U.S. Dept. of Justice*, et al, 392 F.Supp.3d 68 (D.D.C. 2019); *see id.* at 9, 19-21. While the rulemaking record contains discussion of *Green*, NTIA notes that nothing in this submission should be read as opining on any aspect of that litigation against U.S. government agencies.

<sup>483</sup> Halderman Class 13 Initial Comments, at 31-32.

<sup>484</sup> *Id.* at 23, 26-27 (“This is especially problematic in the context of laws like the CFAA that depend on nuanced prosecutorial discretion and guidance to differentiate purely technical violations that are rarely—if ever—litigated from instances where researchers are actually likely to face liability or prosecution.”) (internal footnote and citation omitted); *see also* Rapid7 Class 13 Initial Comments, at 4 (“Researchers that seek to ensure protection under the current temporary exemption for security research are forced to weigh legal risks associated with the ambiguities of numerous obscure laws with uneven application in different jurisdictions. It is concerning that if good faith security research violates an obscure legal

NTIA emphasizes that an exemption granted under this rulemaking does not obviate the need to comply with any other laws and regulations. The Librarian does not have the authority to exempt parties from their duty to comply with other laws and regulations, even with respect to other aspects of the DMCA such as the anti-trafficking provisions.<sup>485</sup> Likewise, it does not prevent parties from seeking relief pursuant to these laws as appropriate. Moreover, the prohibition on circumvention is not the best vehicle to ensure compliance with other laws unrelated to copyright, including the CFAA.<sup>486</sup> NTIA understands, however, that the current regulatory language in essence exports potential liability under the DMCA to any other legal regime.<sup>487</sup> This also brings non-copyright law considerations into this exemption. Even if the conduct at issue otherwise falls within the bounds of the security research exemption, a technical violation of *any* applicable law could make the security researchers ineligible for the exemption and liable for violation of section 1201, even if that law has little or nothing to do with the DMCA or protecting copyright.<sup>488</sup> At that point, the security researcher would presumably be subject to the civil remedies listed in section 1203.<sup>489</sup> Although opponents contend that the

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provision with no bearing on security or copyright, the security testing exemption may thus be forfeited and the researcher thereby exposed to private lawsuits under 17 USC 1203(a)(1)-(2)").

<sup>485</sup> 2018 Register's Recommendation, at 11-12 ("The Register does not have authority to recommend—nor does the Librarian of Congress have authority to adopt—exemptions for these anti-trafficking prohibitions as part of the triennial rulemaking process . . . . The Librarian cannot exempt any parties from their duty to comply with other laws, including non-copyright statutes or regulations.") (internal citation omitted); *see, e.g.*, April 8 Hearing Transcript, Remarks of Christian Troncoso, at 478 ("I understand that there is a legal overlay to a lot of the activity that is in play with security research, but that legal overlay is not going to go away merely by removing the limitations in this exemption. That legal overlay is the natural byproduct of there being a statutory prohibition that can cover this activity and other statutes, the CFAA and others [. . .].") and Wilson Scarbeary, at 497 (One proponent notes that they "still maintain that there's no way the exemption could really be read to also be an exemption to the CFAA."); Rapid7 Class 13 Initial Comments, at 2-3 ("These other laws apply independently of section 1201, and violations carry their own penalties, remedies, and enforcement entities separate from copyright and the Librarian of Congress."), citing 2015 Register's Recommendation, at 316 (noting that "the rules that should govern [security research] are best considered by those responsible for our national security and for regulating the consumer products and services at issue.") (brackets added in Rapid7's comment).

<sup>486</sup> *See, e.g.*, DOJ Class 13 Reply Comment, at 4 ("Yet, as we noted in our 2018 comments, while the DMCA was enacted to serve the important goal of protecting technological measures and thereby bolstering protection for the exclusive rights granted by copyright, it was not designed to ensure compliance with other laws unrelated to copyright. It is neither the most efficient nor most appropriate tool for doing so."); *see also* 2018 Register's Recommendation, at 301, n. 1831 ("The Copyright Office subsequently issued its Section 1201 Report, reiterating that 'other agencies should not rely on section 1201 to help enforce or cover gaps in their own . . . regulations.'") (citing to Section 1201, at 124-126) (internal quotation marks in original).

<sup>487</sup> DOJ Class 13 Reply Comments, at 4 ("The existing language *significantly increases* the potential consequences to security researchers of even a minor violation of the law by exposing them to DMCA liability in addition to whatever penalty may apply directly to the violation.") (emphasis added); NTIA 2018 Letter, at 78-79.

<sup>488</sup> *Id.*

<sup>489</sup> *See* Halderman Class 13 Initial Comments, at 26; *see also* DOJ Class 13 Reply Comments, at 4 ("Unfortunately, conditioning the security research exemption on the requirement that the research 'not

prohibition on circumvention is not a cause of the adverse effects proponents raise,<sup>490</sup> proponents explain how in practice the “any applicable law” provision in the exemption makes it more difficult to launch legitimate research projects.<sup>491</sup> This dynamic can also create the conditions for parties that according to proponents allegedly “merely seek to leverage Section 1201 to intimidate critics or opponents” by raising claims “that have no actual basis in copyright law” but nonetheless use a copyright hook to dissuade researchers from their otherwise legitimate activities.<sup>492</sup> The negative impact of this provision on security research is further compounded if the “any applicable law” provision includes laws and regulations outside of the United States, a concern that has been expressed in this rulemaking given the continually evolving software product market and security research collaboration across borders.<sup>493</sup> NTIA agrees with

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violate any applicable law’ effectively means that where a researcher has undertaken a project involving circumvention in good faith, after diligent efforts to ensure legal compliance, even a minor violation of applicable law could prevent the security research exemption from applying, and result in substantial liability under the DMCA.) (quotation marks in original). Several opponents noted that the threat of *criminal* liability is low in part due to the elements required to be liable under Section 1204 of Title 17. *See, e.g.*, Joint Creators Class 13 Opposition Comments, at 6. However, proponents here focused their discussion on section 1203, not section 1204. CCIPS has recognized that the risk of DMCA liability for violation of any applicable law, including even a minor violation, is legitimate. *See* DOJ Class 13 Reply Comments, at 4.

<sup>490</sup> *See, e.g.*, April 8 Hearing Transcript, Remarks of Chris Mohr, at 498 (“[I]f all of these other laws are problematic in stopping this kind of [security] research and they are somehow in the way, then the [section 1201] statute is not in the way.”); BSA Class 13 Opposition Comments, at 5-6; SIIA Class 13 Opposition Comments, at 4 (“Conversely, if the CFAA or ECPA (or similar statute) prevents certain activity, then 1201 does not cause the adverse effect as a matter of law.”).

<sup>491</sup> *See, e.g.*, April 8 Hearing Transcript, Remarks of Blake Reid, at 503-04, (“[W]e’re dealing with people who to need to affirmatively demonstrate that their behavior is sufficiently not risky, for example, to get the go-ahead from their university or their company to move ahead.”), Stan Adams, at 499, (“[B]ecause they are tied conditionally to 1201, all these other laws become part of 1201 and are part of the problem [ . . .].”), and Blake Reid, at 437 (Explicitly tying section 1201 and every other lead “significantly complicates the risk calculus for security researchers.”).

<sup>492</sup> Halderman Class 13 Initial Comments, at 26, 29; *see also* April 8 Hearing Transcript, Remarks of Blake Reid, at 489 (“And I think a lot of [proponents’] concerns here are rooted in a need for certainty that the users of the exemption are indeed complying with the law and not merely that they’re avoided getting sued.”).

<sup>493</sup> *See* Rapid7 Class 13 Initial Comments, at 5; *see also* DOJ Class 13 Reply Comments, at 4 (“An increasing portion of contemporary computer security research involves collaboration among researchers across international borders. Accordingly, the ‘any applicable law’ requirement means that a U.S. researcher’s violation of foreign law could result in a loss of the exemption and attendant liability under the DMCA. This could be the consequence even where the foreign violation is an obscure or minor one, the foreign law in question is more onerous than or inconsistent with U.S. law, or the foreign law is administered or enforced in a manner inconsistent with U.S. standards.”); Class 13 Ex Parte Letter of Rapid7 and Halderman (Rapid7 and Halderman Class 13 Ex Parte Letter), Docket No. 2020-11, at 2, <https://www.copyright.gov/1201/2021/ex-parte/Class-13-Ex-Parte-Meeting-Summary-proponents.pdf> (“There is nothing in Section 1201 that says obscure and extraterritorial laws do not apply under the ‘any applicable law’” provision.). There is disagreement on the record on whether the “any applicable law” provision should be read to sweep in foreign laws. *See* April 8 Hearing Transcript, Remarks of Chris

proponents that the “any applicable law” provision tends to pull significant non-copyright law and policy considerations into this rulemaking process.<sup>494</sup> Removing this limitation would also help in the administration and evaluation of the exemption.<sup>495</sup> Although NTIA supports removing and replacing the “any applicable law” language as noted in this section, should the Librarian retain that regulatory language as is, NTIA urges the Copyright Office and the Librarian to at the very least indicate that the “any applicable law” limitation as written in the regulation should not necessarily be understood to apply to foreign laws, as even some opponents do not appear to agree with that interpretation of the limitation.<sup>496</sup>

Previously, the Copyright Office has noted that the “any applicable law” provision is similar to the condition under the statutory exemption for security testing under section 1201(j), and opponents emphasize that the Librarian should be wary of removing the language since it was Congress that wrote such language into the statute.<sup>497</sup> While the provision is modeled after the statutory language, the Librarian does not need to always duplicate that model in the temporary exemption, particularly when the record demonstrates a strong need to do otherwise. This rulemaking affords the Librarian the opportunity and flexibility to devise exemptions that address current concerns, and the rulemaking serves a way to supplement the permanent exemptions.<sup>498</sup>

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Mohr, at 491-493 (noting that “the copyright laws certainly have not been interpreted to have extraterritorial reach”).

<sup>494</sup> See Halderman Class 13 Initial Comments, at 26.

<sup>495</sup> See *id.* at 4 (“Additionally, the current exemption imports uncertainty from legal regimes outside of copyright law—such as the Computer Fraud and Abuse Act (CFAA)—creating additional confusion for security researchers and unnecessary complexity for the Office in administering these rules.”).

<sup>496</sup> See, e.g., SIIA Class 13 Opposition Comments, at 4. One opponent also mentioned that he “never thought of foreign laws as being part of that limitation on the exemption” and would support clarifying that without changing the regulatory language. April 8 Hearing Transcript, Remarks of J. Matthew Williams, at 493.

<sup>497</sup> See, e.g., Joint Creators Class 13 Opposition Comments, at 6 (“Congress wrote a similar requirement that researchers must comply with laws other than the Copyright Act into the statutory security testing exemption, Section 1201(j). Thus, Congress clearly had no problem with other laws being considered in connection with Section 1201, and neither should the Copyright Office.”); see also ACT Class 13 Opposition Comments, at 2; BSA Class 13 Opposition Comments, at 6; SIIA Class 13 Opposition Comments, at 4.

<sup>498</sup> See DOJ Class 13 Reply Comments, at 4, n. 8 (“We recognize that a similar requirement that good faith security *testing* not constitute ‘a violation of applicable law’ is incorporated in the DMCA’s statutory exception for security testing under § 1201(j)(2). One advantage of the Register’s triennial review process, however, is that it permits the language of exemptions to adapt to evolving technologies, market conditions, and legal landscapes.”) (internal italics and quotation marks in original); April 8 Hearing Transcript, Remarks of Wilson Scarbeary, at 498, (“The purpose of this rulemaking is because Congress recognized that those [statutory] exemptions would probably and most likely be insufficient going forward, and so simply sort of anchoring the language to how it exists in the statute makes no sense in that context.”), and J. Alex Halderman, at 512-13 (“The world looks completely different today in terms of cybersecurity threats and in terms of the shape of the defensive community of how much we are relying on a broad community of academics and individuals and companies to keep all parts of our

Instead of removing a reference to other laws outright, NTIA, consistent with its recommendation in 2018, continues to recommend replacing the “any applicable law” provision with language that gives clear notice to users in this class of the need to comply with other laws, but that otherwise avoids creating the risks highlighted in the record. Several commenters in this proceeding already suggest a similar solution. NTIA’s preferred approach is to delete the provision and add a sentence to the end of the regulatory text that reads: “This exemption does not obviate the need to comply with all other applicable laws and regulations.” Should the Librarian want to reference the CFAA, it can be done in the context of that notice. Understanding the complexities in this record, NTIA would also be comfortable if the Librarian instead adopted Rapid7’s helpful proposal to amend the definition of “good faith security research” in 37 C.F.R. § 201.40(b)(11)(ii) to include the following statement:

Good faith security research that qualifies for the exemption under paragraph (a) may nevertheless incur liability under other applicable laws, including without limitation the Computer Fraud and Abuse Act of 1986, as amended and codified in title 18, United States Code.<sup>499</sup>

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infrastructure and society safe.”); Class 13 Reply Comments of J. Alex Halderman, *et al.* (Halderman Class 13 Reply Comments), Docket No. 2020-11, at 10, [https://www.copyright.gov/1201/2021/comments/reply/Class%2013\\_Reply\\_J.%20Alex%20Halderman,%20Center%20for%20Democracy%20and%20Technology,%20U.S.%20Technology%20Policy%20Committee%20of%20the%20Association%20for%20Computing%20Machinery.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2013_Reply_J.%20Alex%20Halderman,%20Center%20for%20Democracy%20and%20Technology,%20U.S.%20Technology%20Policy%20Committee%20of%20the%20Association%20for%20Computing%20Machinery.pdf) (“Congress explicitly added the triennial review process to Section 1201 to allow the [Copyright] Office to adjust and rework exemptions based on changing circumstances and new technologies.”) (internal footnote omitted). Although the bases referenced above are sufficient for the Librarian to not replicate the text in section 1201(j), depending on the language of the final rule in this rulemaking, the updated regulatory language may have other explicit limitations in place that seek to address the issues that Congress may have been contemplating when referencing violations of “applicable law” in section 1201(j). *See* Rapid7 Class 13 Initial Comments, at 3 (“However, when Congress deliberated on the ‘any applicable law’ limitation in the 1201(j) permanent exemption for security testing, Congress focused squarely on issues of consent and lawful acquisition. The Copyright Office has already addressed consent and lawful acquisition elsewhere in the temporary exemption. Two decades ago, Congress did not contemplate the broad diversity of laws now implicated in decentralized security research on a vast array of software, and how this would significantly expand the breadth of the ‘any applicable law’ provision. This is the type of ‘flexibility in enforcement’ issue that Congress intended the triennial rulemaking process to rebalance.”) (internal citations omitted).

<sup>499</sup> Rapid7 Class 13 Initial Comments, at 5; Rapid7 and Halderman Class 13 Ex Parte Letter, at 1; DOJ Class 13 Reply Comments, at 4-5. Although this is not proponents’ preferred solution, they note that “Rapid7’s proposed modification with regard to the Other Laws Limitation would solve many of the issues with the Other Laws Limitation.” *See also* Halderman Class 13 Initial Comments, at 12; DOJ Class 13 Reply Comments, at 4-5 (supporting Rapid7’s suggestion). CCIPS proposes an addendum to the Rapid7 proposed regulatory text that would read: “and qualification for the exemption under paragraph (a) is not a safe harbor or defense to liability under other applicable laws.” *Id.* at 5. This addendum was not significantly discussed on the record, but NTIA would also not object to its incorporation. CCIPS notes that the addendum serves as a “further clarification” on the issue. *Id.* As such, NTIA understands that this addendum does not change the eligibility requirements to qualify for the security research

**The “Lawfully Acquired” Provision:** Proponents also petition the Librarian to remove the limitation in the current exemption that circumvention be “undertaken on a lawfully acquired device or machine on which the computer program operates, or is undertaken on a computer, computer system, or computer network on which the computer program operates with the authorization of the owner or operator of such computer, computer system, or computer network.”<sup>500</sup> Proponents note that it can be unclear when a device or machine has been “lawfully acquired” for the purposes of the exemption, and they also fear that this provision could be weaponized to deter security research.<sup>501</sup> Although the Acting Register in 2018 stated that she does not believe the phrase “lawfully acquired” to be ambiguous, she clarified that eligibility should not turn on restrictive contractual terms “purporting to limit the use of the hardware on which the copyrighted software is running.”<sup>502</sup>

NTIA emphasizes that it is critical that users in this class obtain access to programs, devices, machines, and systems in a legitimate manner, and that an exemption granted under this rulemaking does not grant permission to abstain from following other laws and regulations in this regard, even with respect to other parts of the DMCA. As noted above, an exemption does not prevent parties from seeking relief pursuant to these laws as appropriate. In the past, NTIA has conditioned its recommended regulatory language in this class on circumvention being “initiated by the owner of the copy of the computer program or with the permission of the owner of the copy of the computer program.”<sup>503</sup> For this rulemaking, NTIA is persuaded that proponents have demonstrated that users in this class are adversely affected or likely to be adversely affected by the “lawfully acquired” provision in a similar way as the “any applicable law” provision.<sup>504</sup>

The limitation as written does not properly address the modern digital security research use cases that proponents highlight and creates an adverse effect on legitimate security research.<sup>505</sup> Proponents have raised concerning scenarios specific to the security research context. Proponents, for example, claim that researchers “often cannot purchase devices like [voting equipment] directly from the manufacturer or vendor.”<sup>506</sup> In such an instance, a

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exemption or the nature of the permitted activities. NTIA also does not read the addendum as expanding or limiting the rights of parties in matters outside of section 1201(a)(1).

<sup>500</sup> Halderman Class 13 Initial Comments, at 5 (citing to 37 C.F.R § 201.40(b)(11)(i)).

<sup>501</sup> *Id.* at 24; *see also* April 8 Hearing Transcript, Remarks of Wilson Scarbeary, at 477 (“Our concern here is simply that [the “lawfully acquired” provision] allows software developers to essentially weaponized the DMCA in a way to totally preclude security research by including a contractual clause that devices cannot be sold to security researchers.”).

<sup>502</sup> 2018 Register’s Recommendation, at 303 (citing CCIPS 2018 Letter at 5).

<sup>503</sup> 2018 NTIA Letter, at 84.

<sup>504</sup> Although the contours of the “lawfully acquired” provision may generally fall closer to copyright interests than those of the “any applicable law” provision, the concerns presented show the real problems security researchers face if both provisions are kept as they are.

<sup>505</sup> NTIA notes this conclusion is only for this particular class based on the totality of the record presented here.

<sup>506</sup> Halderman Class 13 Initial Comments, at 24.

researcher may seek to acquire the needed devices secondhand from third parties; however, the original buyer may have had a resale constraint specifically aimed at restricting sales to third parties like researchers (unknown to the researcher), creating a situation where there would be liability for researchers that “would be entirely dependent on the actions of a third party . . . over whom researchers have no control.”<sup>507</sup> Proponents further note that “in many cases, these contractual restraints against resale are placed on devices by manufacturers or vendors expressly for the purpose of deterring security research.”<sup>508</sup> These examples create situations where a security researcher might have indeed obtained access to a program, device, machine, or system in a legitimate manner (and done their best to do so), but nonetheless the threat of section 1201 liability looms large due to potential ambiguities in the law. It is critical that these concerns do not limit valuable independent research that may shed further light into issues of vital national interest when those researchers are abiding by the law.<sup>509</sup>

To be clear, consideration of contractual issues or other legal issues involving obtaining access to programs, devices, machines, and systems legitimately do not go away for any user in this class if the Librarian removes the “lawfully acquired” limitation, as the Librarian’s exemptions do not affect liability under other laws and regulations.<sup>510</sup> It is the users in this class who ultimately bear the legal risk of their actions in this context, with or without the provision. The same applies to considerations of copyright infringement.<sup>511</sup> In other words, this change

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<sup>507</sup> *See id.*, at 24 (“And we pointed out in our comments one area where this is particularly common, is in the context of election machine security research, where these companies frequently try and dissuade security researchers from analyzing their systems by including these kind of contractual restraints.”); *see also* April 8 Hearing Transcript, Remarks of J. Alex Halderman, at 477-78, 481-82, 483 (providing an example in which a voting equipment is brought for study to a security research conference).

<sup>508</sup> Halderman Class 13 Initial Comments, at 24 (citing documentary statement of Harri Hursti and J. Alex Halderman in Item F.1 of the submission).

<sup>509</sup> *See, e.g.*, Halderman Class 13 Initial Comments, at 36 (“Occasionally, vendors will ship voting machines with assurances that the machines cannot be accessed or controlled wirelessly. However, these machines may contain a wireless modem that has been switched off but could easily be activated by a malicious actors. In order to assess the potential vulnerabilities in machines like this that could allow for—among other things—the alteration of votes by malicious actors. First, it is necessary to determine whether or not the device actually has a wireless modem. Obviously, it would be easiest to physically take apart the machine to determine this, but vendors often include contractual restraints that prevent purchasers from taking apart or fixing machines on their own. There may also be contractual provisions that prohibit buyers from re-selling devices to third parties.”); *see also* April 8 Hearing Transcript, Remarks of J. Alex Halderman, at 443-44 (“Well, so a large part of the problem, as we’ve explained, comes from the various complicating factors of the existing exemption, including the other laws provision, which makes it just so much harder to have a brief overview of someone’s project and be able to determine where it’s safe to proceed. So, in my experience and the experience watching colleagues who have gone through this, the problem is not that there’s no exemption. The problem is that the exemption has so many caveats.”).

<sup>510</sup> *See supra* n. 485.

<sup>511</sup> Halderman Class 13 Reply Comments, at 11.

should not be read to terminate liability in any other context. The change will also not impose additional obligations on device manufacturers to comply with other laws regulations.<sup>512</sup>

However, there is a risk present that is related to copyright policy that the Librarian can address. NTIA believes this issue is similar to the discussion of the “any applicable law” provision, insofar as both provisions export DMCA liability from other legal regimes (*e.g.*, state contract law) in the DMCA 1201 exemption, with the understanding that this limitation may also need to take into account foreign laws and regulations.<sup>513</sup> This can create a condition that allows the specter of section 1201 liability to exist even when there might not be a copyright or DMCA concern. As such, NTIA proposes the same approach to resolve this issue: remove the relevant language and add a statement to the regulatory text providing clear notice that the exemption does not obviate the need to comply with all other applicable laws and regulations.<sup>514</sup> The regulatory text can make a specific point that the removal does not impact laws or regulations that may be relevant in the inquiry of whether a program, device, machine, or system has been “lawfully acquired” or whether the circumvention is undertaken with the permission of the “owner or operator of such computer, computer system, or computer network.”<sup>515</sup>

NTIA welcomes the steps the Acting Register and the Librarian took in 2018 to clarify the contours of the “lawfully acquired” provision within the context of the rulemaking. The Acting Register recommended, and the Librarian adopted, regulatory language that notes that circumvention can be undertaken with the “authorization of the owner or operator” of the “computer, computer system, or computer network.”<sup>516</sup> The Acting Register in its guidance specifically noted that the exemption “does not require that the circumventing party be the lawful

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<sup>512</sup> *Id.* at 9 (“To be clear, removing the linkage between the Section 1201 and ‘all other laws’ won’t materially affect the ability of companies to continue to secure their products with TPMs to comply with various regulations. It would merely constrain the reach of Section 1201 to copyright concerns.”) (internal citation omitted).

<sup>513</sup> Proponents reference the “lawfully acquired” provision and the “any applicable law” provision under the umbrella term “other laws.” *See id.* at 24-25 (“While the Lawfully Acquired Limitation creates uncertainty for security researchers based on the applicability of state contract law, the Any Law Limitation implicates these issues as well as other complex questions of law under *any law* in the entirety of the US Code, state law, and county or municipal regulations.”); April 8 Hearing Transcript, Remarks of Blake Reid, at 475 (“I just wanted to . . . point out that basically our concerns with ‘lawfully acquired’ are a subset of the concerns with other laws. In other words, the set of legal issues, the set of risks, the set of uncertainty, the complexity of dealing with it is just – we kind of see “lawfully acquired” as an example of the kinds of problems that occur with other law but obviously a narrower subset, a narrower set of laws that are potentially implicated, a slightly simpler question.”).

<sup>514</sup> Opponents argue that the Librarian should align the temporary exemption with the statutory exemptions. *See, e.g.*, Joint Creators Class 13 Opposition Comments, at 5 (“Moreover, the Copyright Office should not alter the current exemption; it aligns with the common sense approach that Congress itself adopted in the Copyright Act.”) (citing H.R. Rep. No. 105-796, 105th Cong. 2d Sess., at 67 (Oct. 8, 1998)). However, as noted in the discussion of the “any applicable law” provision, the Librarian need not replicate the exact language or approach of the statutory exemptions.

<sup>515</sup> 37 C.F.R. §201.40(b)(11)(i).

<sup>516</sup> *Id.*

owner of the device—or the software embedded within the device—only that the device be lawfully acquired.”<sup>517</sup> Importantly, the Acting Register in 2018 recognized that eligibility for the exemption “should not turn on restrictive contractual terms purporting to limit the use of the hardware on which the copyrighted software is running.”<sup>518</sup> NTIA, however, does not believe that guidance alone means that the regulatory text should not be modified. As noted, one risk shown in this record relates to the automatic incorporation of DMCA liability into any other regime—potentially even foreign laws and regulations dealing with ownership issues. Guidance alone may not resolve that issue.<sup>519</sup> Thus, when possible and as warranted, the Librarian should seek to make the changes to the regulatory text.<sup>520</sup>

**The “Purpose” Provision:** NTIA is persuaded that users in this class are adversely affected or likely to be adversely affected by the language in the current exemption that cabins circumvention “*solely* for the purpose of good-faith security research” and that cabins the definition of good-faith security research to accessing a computer program “*solely* for the purposes good faith testing, investigation, and/or correction of a security flaw or vulnerability.”<sup>521</sup> In both instances, proponents seek to remove the term “solely” from the current exemption language.<sup>522</sup>

A rigid formulation of good-faith security research in the regulatory text can make the exemption “ambiguous, limits security research activities such as public discussion and publication of academic papers, and ultimately decreases the identification of vulnerabilities.”<sup>523</sup> In this record, the proponents note that “[u]ncertainty concerning the scope and definition of the ‘solely’ requirements . . . deprives researchers of sufficient clarity about whether the exemption permits engaging in scholarship or criticism related to copyright materials protected by a

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<sup>517</sup> 2018 Register’s Recommendation, at 303.

<sup>518</sup> *Id.* (citing CCIPS 2018 Letter at 5); *see also* DOJ Class 13 Reply Comments, at 5. CCIPS maintains the “lawfully acquired” provision should remain in the regulatory text, and they note that the exemption is “sufficiently broad to encompass research performed by a researchers who possesses a device legally, even pursuant to a license, and research performed on hardware owned by another party, if the researchers has the permission of the owner or another lawful possessor of the hardware, such as a lessee.” *Id.* at 5.

<sup>519</sup> *See* April 8 Hearing Transcript, Remarks of Blake Reid, at 486 (“[H]aving guidance buried somewhere in the recommendation doesn’t penetrate all the way out into the communities that are affected here.”).

<sup>520</sup> NTIA acknowledges that this is not a simple proposition, and the right balance on language in the regulatory text will differ on a case-by-case basis. *Cf.* April 8 Hearing Transcript, Remarks of Kevin Amer, at 479-80 (highlighting potential complications in changing regulatory text). While there is no steadfast rule in this regard, NTIA suggests that when removing regulatory text and replacing it with a clear notice can resolve a particularly identifiable concern, then such action is likely appropriate.

<sup>521</sup> Halderman Class 13 Initial Comments, at 5 (emphasis added). The proponents incorporate both instances of the use of the word “solely” under the umbrella term “purpose limitation.” NTIA uses the term “purpose provision” to refer to the discussion of the inclusion of the word “solely” in the exemption.

<sup>522</sup> *Id.*

<sup>523</sup> *See* NTIA 2018 Letter, at 79 (internal footnote omitted). In the 2018 rulemaking, both instances of the use of the word “solely” were referred to as the “Access Limitation.”

TPM.”<sup>524</sup> Indeed, these activities are the core of what researchers do,<sup>525</sup> and the concerns about the term “solely” are not limited to just academic settings.<sup>526</sup> Finally, NTIA agrees with proponents that the Librarian does not need to always replicate the language from the statutory exemptions in the temporary exemptions, particularly since the temporary exemptions can more readily address current concerns.<sup>527</sup>

NTIA appreciates the Acting Register’s clarification in 2018 that the application of the term “solely” in both instances “is not properly read to prohibit teaching, academic dialogue, or scholarship involving information derived from good-faith security research” and that “a researcher who at the time of circumvention intends to publish the results of the good-faith research or use them in the course of teaching would not exceed the bounds” presented by the term “solely” in the exemption.<sup>528</sup> In this rulemaking’s hearings, NTIA probed whether the guidance issued alongside the regulatory text (*e.g.*, the Register’s Recommendation) is useful.<sup>529</sup> NTIA is persuaded that, at least in this particular context, the community of users is diverse enough that the guidance, while helpful, may not be “filtered into the community quite readily.”<sup>530</sup> And, as proponents further explained, removing “solely” can mitigate potential risk of abuse against those who are ultimately using the exemption for good faith security research,

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<sup>524</sup> Halderman Class 13 Initial Comments, at 18.

<sup>525</sup> April 8 Hearing Transcript, Remarks of J. Alex Halderman, at 448-49 (“Then usually after the problems are fixed, but not always, usually after they’re fixed, the researchers go public with the results of their findings, and that’s not only to disseminate knowledge to the broader research community about how similar problems could be found, but it’s also to alert the public about the problems that have existed so people can make better choices in the future about what products or services they want to buy or rely on. [ . . . ] [I]n the vast majority of projects I’ve worked on, they’ve resulted ultimately in some kind of publication that described the findings and what we did. That’s just core to the academic mission of a university.”).

<sup>526</sup> April 8 Hearing Transcript, Remarks of Blake Reid, at 454-55 (“To the point that GitHub raised, I think what you’re hearing is that this is not just a concern for academic researchers, but this is a concern out in industry that when folks are doing work like securing a supply chain that’s integrated with other aspects of a business, these same sorts of concerns that we’re talking about here are prevalent there as well.”) (referencing the submission from GitHub on the record: GitHub Class 13 Reply Comments).

<sup>527</sup> Halderman Class 13 Initial Comments, at 20.

<sup>528</sup> 2018 Register’s Recommendation, at 305-06; *see also* April 8 Hearing Transcript, Remarks of Brad Greenberg, at 449 (“In both 2018 and 2015, the register clarified that the access limitation does not prohibit teaching, academic dialogue, or scholarship involving the information derived from good-faith research.”) U.S. DOJ CCIPS notes that with the Acting Register’s 2018 guidance, they believe the change to remove the references to “solely” is unnecessary. DOJ Class 13 Reply Comments, at 5. In response to that clarification, of the opponents argues that this proposal should be denied because the “purported adverse effects” rely from an “unreasonable interpretation” and “misreading” of the limitation. BSA Class 13 Opposition Comments, at 4; *see also* Joint Creators Class 13 Opposition Comments, at 4.

<sup>529</sup> *See* April 8 Hearing Transcript, Remarks of Blake Reid, at 483-86.

<sup>530</sup> *See id.* NTIA does not intend to suggest a hardline rule in this regard. In the discussion on privacy-related activities that fall under good-faith security research NTIA does support issuing clarifying guidance and not changing the regulatory text at this time, given the particular record in that portion of the discussion.

and thus overall reduce uncertainty by users in this class.<sup>531</sup> To the extent that there is concern that removing “solely” may create an environment for copyright infringement, it may be more appropriate to address that concern as part of the discussion of the limitation that “the information derived from the activity . . . is not used or maintained in a manner that facilitates copyright infringement.”<sup>532</sup>

NTIA concludes the same as it did in 2018: modifying the provision to remove the term “solely” will “provide clarity to good-faith security researchers and result in increased good-faith security research efforts, further coordination within the security research community, and ultimately promote public safety and security.”<sup>533</sup> NTIA notes that removing the word “solely” does not remove the requirement that users in this class continue to engage in good-faith security research.<sup>534</sup>

**The “Security” Provision:** NTIA is persuaded that users in this class are adversely affected or likely to be adversely affected by the language in the current exemption that contains the following requirement: “the information derived from the activity is used primarily to

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<sup>531</sup> 2018 NTIA Letter, at 80; April 8 Hearing Transcript, Remarks of Blake Reid, at 457 (“By doing that [removing the word “solely”], we avoid basically creating a foothold for these sort of abusive arguments that say, well, you might be doing something else, we don’t know about the publication of this paper, we don’t know – it seems like this is related to a business, you’re getting paid for this.”). One opponent contends that by removing the word “solely” the value derived from security research “is a hundred percent going to end up in products that are on the Dark Web and are available from people who do not have a good-faith intent. So I think that’s the problem. If you remove ‘solely,’ you essentially create an entire ecosystem around bad faith.” See April 8 Hearing Transcript, Remarks of Morgan Reed, at 460. NTIA is not persuaded by this argument, as the harm contemplated here seems to be focusing on the actions of third parties, not the users in the class. Moreover, as discussed more substantially in discussion of the “any applicable law” provision, the concerns addressed in this proceeding should be about copyright; other concerns are best handled by other legal and regulatory regimes.

<sup>532</sup> 37 CFR 201.40(b)(11)(ii); see also April 8 Hearing Transcript, Remarks of Blake Reid, at 469 (“The one core concern that we hear that is cognizable under 1201 as one that is within the ambit of the [Copyright Office’s] jurisdiction here is . . . about copyright infringement, and I’d note that there’s a limitation in the existing exemption that restricts use of the information that’s derived from the security research in a manner that facilitates copyright infringement. Now we have concerns about the formulation of that particular limitation because it puts responsibility on basically for downstream third-party behavior, not of the researcher. We don’t think that formulation is right. But, to the extent that the [Copyright Office] wants to focus on extraneous concerns or bad faith, [. . .] thinking about making sure that those concerns are actually narrowed to concerns of copyright infringement, I think, is important.”).

<sup>533</sup> NTIA 2018 Letter, at 80; see also GitHub Class 13 Reply Comments, at 4 (“The purpose of the security exemption must be to incentivize, rather than discourage, practices consistent with good faith security research.”).

<sup>534</sup> April 8 Hearing Transcript, Remarks of Aaron Williamson, at 463 (“If you remove ‘solely,’ you’re left with ‘for the purpose of good-faith security research,’ right? And so, you know, it’s a lot easier to tell whether you’re doing research in good faith than it is to tell whether you’re doing research solely for – or doing work solely for good-faith security research because . . . those who work in security research are often is a sort of dual-purpose role . . . . And every criticism I’ve heard of the word ‘solely’ from the opposition would suggest that they’re looking at bad-faith potential uses. And so, when you remove ‘solely,’ I think ‘good faith’ does all the work that they need ‘solely’ to do.”).

promote the security or safety of the class of devices or machines on which the computer program operates, or those who use such devices or machines, and is not used or maintained in a manner that facilitates copyright infringement.”<sup>535</sup>

The Acting Register in 2018 stated that “it is not plausible to conclude that the term ‘primarily’ could be interpreted to mean ‘only.’ Those two terms clearly are not synonymous . . . .”<sup>536</sup> Opponents in this rulemaking support this rationale as part of their argument that the Register should deny petitioners’ proposal.<sup>537</sup> NTIA agrees that “primarily” and “only” do not mean the same thing.<sup>538</sup> However, the issue here is not just whether “primarily” means “only” – it is what “primarily” entails (and therefore restricts) on its own; the uncertainty can put at risk in practice the application of the good faith security research exemption.<sup>539</sup> In this sense, employment of the word “primarily” carries similar concerns as the word “solely” discussed in the previous section.<sup>540</sup> NTIA concludes the same as it did in 2018: removal of this provision

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<sup>535</sup> Halderman Class 13 Initial Comments, at 5.

<sup>536</sup> 2018 Register’s Recommendation, at 309.

<sup>537</sup> See, e.g., BSA Class 13 Opposition Comments, at 4-5; DVD CCA Class 13 Opposition Comments, at 4; Joint Creators Class 13 Opposition Comments, at 4. One opponent noted that making arguments that “primarily” can be read as “solely” “can lead to concerns in the security research community that the 2018 exemption is much narrower than it, in fact, is.” See April 8 Hearing Transcript, Remarks of Christian Troncoso, at 487.

<sup>538</sup> NTIA does caution that in practice, “primarily” may in effect turn to “only” in practice given the risks security researchers face in their work. See, e.g., Halderman Class 13 Initial Comments, at 21 (“For example, a researcher might feel after conducting a security audit that in addition to disclosing the vulnerability to the software developer, the public should also be warned about the potential security risks. While this *could* be interpreted as improving security for ‘those who use’ the device, the Office has not provided sufficient clarity around how this limitation will be interpreted.”) (italics and quotation marks in original); April 8 Hearing Transcript, Remarks of Wilson Scarbeary, at 447 (“We’ve also identified the use limitations, the multiple references to ‘solely’ and ‘primarily’ that significantly cabin security research. These create problems as far as ancillary activities related to security research, such as scholarship and criticism, that we think is problematic.”).

<sup>539</sup> See Halderman Class 13 Initial Comments, at 18 (“Likewise, the Security Limitation requires that information be used ‘primarily’ to improve the security of devices, adding confusion to researchers’ ability to engage in valuable public discourse concerning cybersecurity policy that isn’t *per se* tied to improving the security of specific devices.”); *id.* at 23 (“Without these changes [removing the “purpose” and “security” provisions], researchers may be circumspect in discussing their work or reluctant to inform the public about critical vulnerabilities in applications from social media to election infrastructure. Even if the suits filed against researchers are entirely meritless, just the threat of litigation from a well-funded firm can be enough to dissuade security researchers—who often work for universities and non-profit organizations.”); HackerOne Class 13 Initial Comments, at 4 (“The idea behind security research is to identify vulnerabilities before bad actors can find them, and it is common for vulnerabilities to appear across devices. Moreover, in addition to finding and reporting a vulnerability to that device’s owner, a security researcher should be able to share his or her findings with others. In short, transparency should not have consequences.”).

<sup>540</sup> Cf. April 8 Hearing Transcript, Remarks of Aaron Williamson, at 464 (Responding that changing the word “solely” to “primarily” “is a small step but contains nearly all the uncertainty of ‘solely.’”).

“would provide clarity to good-faith security researchers and eliminate the potential liability of these researchers for the actions of third parties.”<sup>541</sup>

Rapid7 highlights a more specific concern with the security provision, focused on the requirement that information derived from the security research is not used or maintained in a manner that facilitates copyright infringement.<sup>542</sup> In particular, Rapid7 is concerned that this provision is ambiguous “regarding who is using or maintaining the information” and could be used to penalize a security researcher for “unintended third party use of publicly disclosed information derived from the research activity.”<sup>543</sup> In 2018, the Acting Register acknowledged that “concern about liability turning on the acts of third parties is somewhat more understandable given the exemption’s requirement that the information is not used or maintained in a manner that facilitates copyright infringement.”<sup>544</sup> However, the Acting Register declined to remove the language and instead opted to add clarifying guidance in its Recommendation that the language “refers to the researcher’s own use and maintenance of the information derived from the research.”<sup>545</sup> NTIA commends the Copyright Office for issuing this guidance, but agrees with Rapid7 that “the actual language of the security testing exemption should reflect this clarification and resolve the ambiguity.”<sup>546</sup> Accordingly, if the Librarian declines to remove the security provision as requested in the Halderman Petition, NTIA would recommend adopting Rapid7’s modification to the exemption language as a way to begin to address the listed concerns.<sup>547</sup>

**Good-Faith Security Research and Privacy:** The SFC’s privacy-related research proposal has gone through various iterations during the rulemaking. SFC’s initial petition requested that the Librarian “clarify that the definition of ‘good faith security research’ . . . includes good-faith testing, investigation, and/or correction of privacy issues (including flaws or functionality that may expose personal information) and permits the owner of the device to remove software or disable functionality that may expose personal information.”<sup>548</sup> SFC’s Round 1 comments also asked for this clarification and explained in more detail why the

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<sup>541</sup> NTIA 2018 Letter, at 81.

<sup>542</sup> Rapid7 Class 13 Initial Comments, at 6 (citing 37 C.F.R. § 201.40(b)(11)(ii)).

<sup>543</sup> Rapid7 Class 13 Initial Comments, at 6; Halderman Class 13 Reply Comments, at 6-7 (“Rapid7 notes that this condition could expose a security research to liability where a subsequent malicious actor leverages information in a vulnerability disclosure to commit copyright infringement.”) (citing Rapid7 Class 13 Initial Comments, at 6).

<sup>544</sup> 2018 Register’s Recommendation, at 309 (internal citation and quotation marks omitted).

<sup>545</sup> *Id.*; see also DOJ Class 13 Reply Comments, at 5 (“To the extent that the existing language of 201.40(b)(11)(i) and (ii) could be construed to hold researchers responsible for copyright infringement committed by others, the Register’s 2018 clarification—that ‘this language refers to the researcher’s own use and maintenance of the information derived from the research,’ and that any facilitation should be assessed using established principles of third party liability for infringement—largely addressed this concern.”).

<sup>546</sup> Rapid7 Class 13 Initial Comments, at 6.

<sup>547</sup> See *id.* Rapid7 would replace the following portion of the temporary security research exemption “and is not used or maintained in a manner that facilitates copyright infringement” with “and the person conducting security research does not use the information to facilitate copyright infringement.”

<sup>548</sup> SFC Class 13 Petition, at 2.

petitioner believes that the current statutory and temporary exemptions are not sufficient to cover the uses sought.<sup>549</sup> In response to opponents' submissions in Round 2, SFC indicated in its Round 3 comments that "a better approach would be to establish a new, separate exemption for privacy research, modeled on the security research exemption and incorporating similar limitations."<sup>550</sup> SFC provided preferred regulatory language to that effect.<sup>551</sup> At the hearing, the Copyright Office noted that Rapid7 and CCIPS had indicated that the good-faith security research exemption already covers the type of privacy research that interests SFC.<sup>552</sup> After some discussion with SFC about the contours of the temporary and statutory exemptions, the Copyright Office asked SFC if it would support removing the portion of the requested exemption that would "permit the owner of a device to remove software or disable functionality that may expose personal information" and have the Office clarify that the exemption already covers the

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<sup>549</sup> Class 13 Initial Comments of Software Freedom Conservancy (SFC Class 13 Initial Comments), Docket No. 2020-11, at 2, [https://www.copyright.gov/1201/2021/comments/Class%2013\\_Initial%20Comment\\_Software%20Freedom%20Conservancy.pdf](https://www.copyright.gov/1201/2021/comments/Class%2013_Initial%20Comment_Software%20Freedom%20Conservancy.pdf). SFC's initial petition and the Round 1 comments equally framed the sought clarifications as an expansion of the current good-faith security research exemption.

<sup>550</sup> Class 13 Reply Comments of Software Freedom Conservancy (SFC Class 13 Reply Comments), Docket No. 2020-11, at 2, [https://www.copyright.gov/1201/2021/comments/reply/Class%2013\\_Reply\\_Software%20Freedom%20Conservancy.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2013_Reply_Software%20Freedom%20Conservancy.pdf).

<sup>551</sup> *See id.*

<sup>552</sup> April 8 Hearing Transcript, Remarks of Brad Greenberg, at 514 ("DOJ and Rapid7 both basically said, if I understood correctly, the current good-faith security research exemption covers the type of privacy research that Software Freedom Conservancy was asking for an exemption for. And Consumer Reports said that they were in support of the office simply clarifying that the current exemption already covers this, so maybe they didn't think the language was clear enough in the register's recommendations but that the regulatory language itself should and did."). *See* Rapid7 Class 13 Initial Comments, at 7 ("The SFC petition notes its proposal would be to 'test for and investigate . . . functionality that inadvertently or deliberately exposes personally identifying information and other privacy-sensitive information to third parties.' Rapid7 believes the Software Freedom Conservancy (SFC) petition largely describes activities that are key to the concept of security testing. As such, we recommend the Copyright Office clarify that the existing statutory and regulatory exemptions cover these activities without change, and so no expansion or modification is necessary.") (internal footnote omitted) (quotation marks in original); DOJ Class 13 Reply Comments, at 5-6 ("Although we recognize the importance of the type of testing and investigation concerning privacy issues, as Rapid7 noted in its comments on SFC's petition, these activities would seem to fall within the category of security testing already exempted by existing statutory and regulatory exemptions. Therefore, we agree with Rapid7's recommendation that SFC's concerns could be more easily addressed through a clarifying statement and do not require changes to the wording of the security research exemption itself.").

type of privacy research raised in the course of the rulemaking.<sup>553</sup> SFC agreed that such clarification would address their concerns.<sup>554</sup>

Following the hearings, the Copyright Office sent the parties a letter indicating that “there appeared to be agreement among participants that the current temporary exemption for security research covers the privacy-related research described in [SFC’s] petition” and that there seemed to be agreement that a clarifying statement in the Register’s Recommendation could be written to address SFC’s concerns.<sup>555</sup> The Copyright Office then asked participants in the hearing to confer and confirm this understanding.<sup>556</sup> The participants met and issued a joint letter (participants’ post-hearing letter) in which most hearing participants—including SFC and some opponents—agreed that “the existing exemption covers testing, investigating, and correcting security flaws or vulnerabilities comprising or related to the unauthorized disclosure or collection of personal information.”<sup>557</sup>

NTIA agrees that the current temporary exemption for good-faith security research includes the activities listed in participants’ post-hearing letter. NTIA, however, also notes that the participants’ post-hearing letter should not be read to encompass all privacy-related research activities in the temporary exemption, and the Register and the Librarian should make this clear in addressing SFC’s petition. In this respect, NTIA strongly supports the statement by Professor Halderman and his counsel Blake Reid in the July 16, 2021 *ex parte* letter following their meeting with the Copyright Office that the participants’ post-hearing letter “was merely intended to convey that the activities described by SFC’s petition are generally covered by the existing exemption” and should not be construed “to exhaustively account for all conceivable ‘privacy-related’ research allowed under the exemption.”<sup>558</sup>

With this understanding, NTIA supports a statement in the Register’s Recommendation and the Librarian’s Final Rule that the good-faith security research exemption already covers the “testing, investigating, and correcting security flaws or vulnerabilities comprising or related to the unauthorized disclosure or collection of personal information.” Although NTIA has for other parts of this exemption suggested modifying the regulatory text (by removing or rewriting language) as opposed to just clarification in administrative guidance, in this particular instance

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<sup>553</sup> SFC Class 13 Petition, at 2; *see* April 8 Hearing Transcript, Remarks of Brad Greenberg, at 516-17 (“I’m actually kind of wondering if we can resolve this pretty easily. I just wonder if -- it sounds to me, and I did see that in your comments, but like you would support removing that portion of the requested temporary exemption and just we could clarify the language so that it would cover the type of privacy research that DOJ and Rapid7 and others are saying already is covered by the current good-faith security research exemption. Would that be an accurate framing of your position on this?”).

<sup>554</sup> *See* April 8 Hearing Transcript, Remarks of Aaron Williamson, at 517.

<sup>555</sup> Participants’ Class 13 Post-Hearing Letter, at 1-2.

<sup>556</sup> *Id.*

<sup>557</sup> This statement was agreed by SFC, the Center for Democracy & Technology, Professor Halderman, Blake Reid (counsel to Professor Halderman), ACT | The App Association, BSA | The Software Alliance, and AACCS LA and DVDV CC. Counsel for the Joint Creators and SIIA participated in the meet and confer but do not endorse this language. Participants’ Class 13 Post-Hearing Letter, at 1-2.

<sup>558</sup> Rapid7 and Halderman Class 13 Ex Parte Letter, at 5.

NTIA is persuaded that administrative guidance is the preferred outcome at this time. Specifically, a significant number of parties in the rulemaking, including the petitioner and some opponents, seem to agree that these activities are already part of the exemption and that changing the text to reflect that is not necessary. NTIA also recommends that the Register and the Librarian note that the privacy-related research language agreed by the parties should not be read as the whole sum of privacy-related research activities permitted under the good-faith security research exemption.

**Alternatives to circumvention and statutory factors:** NTIA concludes the same as in 2018: “[n]o reasonable alternative to circumvention exists because security research cannot take place without circumventing software or device TPMs and developers and rights holders often lack incentives to participate in security research.”<sup>559</sup> The relevant statutory exemptions do not accommodate the proposed activities, which are similar to those discussed in 2015 and 2018.<sup>560</sup>

The Section 1201 rulemaking statutory factors generally favor proponents. Under the first factor, a modified security research exemption will likely increase the availability of copyrighted works. As the uncertainties to engage in good-faith security research are further addressed, security researchers will likely produce more copyrighted works in this area, including, as the Register noted in 2018, “in the forms of articles, presentations, and computer programs aimed at rectifying security flaws.”<sup>561</sup> NTIA is persuaded by proponents’ arguments that addressing their concerns as presented in this rulemaking will not decrease the availability of other copyrighted works, as their “activity does not remove copyrighted information from the market or stifle copyrighted material from entering the market.”<sup>562</sup>

Under the second factor and third factors, addressing concerns in the current limitations is also likely to increase the availability of works for preservation and educational purposes, as well as promote criticism, comment, news reporting, teaching, scholarship, and research.<sup>563</sup> NTIA acknowledges and welcomes efforts by device manufacturers to identify flaws and promote securities in their devices; however, modifying the current security research exemption will promote important public discourse that is critical in part because device manufacturers and distributors have an incentive to “delay or suppress the disclosure of security vulnerabilities in

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<sup>559</sup> NTIA 2018 Letter, at 81; Halderman Class 13 Initial Comments, at 35-37. As NTIA agrees that the privacy-related research activities in participants’ post-hearing letter are already covered under the current security research exemption, this section focuses exclusively on the Halderman Petition, although NTIA notes that clarifying that the privacy research activities in participants’ post-hearing letter also generally favor proponents under the statutory factors for similar reasons.

<sup>560</sup> NTIA 2018 Letter, at 81, n. 416 (“As the Register concluded in 2015, ‘the permanent exemptions in sections 1201(f), 1201(g), and 1201(j) are inadequate to accommodate the proposed research activities.’ 2015 Final Rule, 80 Fed. Reg. at 65956. The proposed research activities in this proceeding are substantially similar to those contemplated in 2015, so NTIA believes that this determination still applies.”).

<sup>561</sup> Halderman Class 13 Initial Comments, at 30 (citing 2018 Register’s Recommendation, at 312).

<sup>562</sup> *Id.* at 30.

<sup>563</sup> *See, e.g.*, April 8 Hearing Transcript, Remarks of J. Alex Halderman, at 441-43; Halderman Class 13 Initial Comments, at 31-32, 35-37.

devices or systems.”<sup>564</sup> This dynamic is exacerbated when, especially in this particular context, such manufacturers or distributors may place restrictions specifically aimed at thwarting independent good-faith security research or otherwise may seek to use the specter of DMCA liability for non-DMCA or other non-copyright purposes. Although the Copyright Office and the Librarian took thoughtful steps to attempt to address some of these concerns via administrative guidance in the last rulemaking and through certain modifications to the regulatory text, proponents have explained why the better course of action is to change the text itself.

The fourth factor, the effect of circumvention of technological measures on the market for or value of copyrighted works, is also a required consideration for the Librarian in this proceeding. NTIA believes that, given the likelihood that good-faith security research activities will increase if petitioners’ proposals are adopted, there will be a “positive net effect on the market for software and devices as more security research invites new, more secure products to enter the market.”<sup>565</sup> Certain potential market harms are not cognizable under copyright law and not meant to be addressed in this rulemaking (*e.g.*, reputational harms for software and devices shown to have security weaknesses); should there be cognizable harms, these would appear to be relatively minimal given that the modifications will not grant permission to avoid following other laws—including the anti-trafficking provisions in the DMCA—and the purpose of the temporary exemption and the requirements that would remain therein. Importantly, modifying these exemptions does not limit the rights of copyright holders in any other manner, including their ability to sue for copyright infringement or to hold users in this class accountable for violations of any other laws.<sup>566</sup> While this point could be raised in the context of other exemptions, it merits particular consideration here where several of the proposals seek to address the intertwining of copyright law and policy with other legal and regulatory regimes.<sup>567</sup>

The fifth factor allows the Librarian to consider any other factors they consider appropriate. As in previous rulemakings, NTIA emphasizes that “the deliberative process should not stray too far afield from copyright policy concerns.”<sup>568</sup> In stating this, NTIA does not seek to minimize other risks that have been alleged in this rulemaking and that have formed part of the discussion. However, risks unrelated to copyright and that primarily center on other issues are best debated in different venues and addressed by other laws, regulations, and relevant government bodies.

In addition, NTIA is concerned about the harms to good-faith security research implicated in the exportation of DMCA liability into every other legal and regulatory regime, including those that may have little to do with the DMCA or copyright. This dynamic also imports the analyses from those other legal and regulatory regimes into the DMCA. Here, then,

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<sup>564</sup> NTIA 2018 Letter, at 83 (internal footnote and citation omitted).

<sup>565</sup> Halderman Class 13 Initial Comments, at 33.

<sup>566</sup> *See, e.g.*, Halderman Class 13 Initial Comments, at 11.

<sup>567</sup> If the Copyright Office and the Librarian do not consider it appropriate to consider this issue under the fourth factor, it could be considered under the fifth factor, as it squarely falls into considerations of copyright policy.

<sup>568</sup> NTIA 2018 Letter, at 2.

the current temporary exemption wades significantly into non-copyright areas (and/or into territory where there is significant ambiguity or differences that this rulemaking process is not empowered to resolve).<sup>569</sup> This can lead to unintended outcomes adversely affecting parties who strive to comply with legal and regulatory requirements and take reasonable care in doing so.<sup>570</sup>

Understandably, the Copyright Office and the Librarian seek to draft exemptions that are fully within the law and do not even tacitly suggest that any illegal behavior is permitted under the exemptions. NTIA shares and commends those efforts. But, as has been illustrated in this rulemaking, there are ways to accomplish that goal while simultaneously furthering actual good-faith security research activities. Copyright interests will continue to be protected, and the security research ecosystem will thrive if the proposals to expand the exemptions are granted.

### **NTIA Recommendation for Class 13 (Security Research):**

NTIA supports modifying the current regulatory text to address the concerns raised in the Halderman Petition. NTIA does not at this time support modifying the regulatory text in furtherance of the SFC Petition, as privacy-related research activities discussed in the participants' post-hearing letter are already part of the temporary security research exemption. In this particular instance, NTIA recommends the issuance of guidance that captures this understanding, and that further notes that these privacy-related research activities covered in the exemption are not limited to the activities listed in participants' post-hearing letter. Accordingly, NTIA recommends the following exemption:<sup>571</sup>

Computer programs, in the form of firmware or software, regardless of the device, machine, or system on which they are run, in order to conduct good-faith security
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<sup>569</sup> See, e.g., Halderman Class 13 Initial Comments, at 25-26.

<sup>570</sup> The discussion in the rulemaking of the “any applicable law” provision is a good example of this. The argument that the provision incorporates foreign laws was not specifically raised by petitioners in their initial submission. It was introduced by a supporter of the proponents (specifically, a private sector cybersecurity firm) in a separate comment. While supporters and at least some opponents in this process do not read foreign laws as being applicable, the U.S. Department of Justice’s Computer Crime and Intellectual Property Section notes that “the ‘any applicable law’ requirement means that a U.S. researcher’s violation of foreign law could result in a loss of the exemption and attendant liability under the DMCA. This could be the consequence even where the foreign violation is an obscure or minor one, the foreign law in question is more onerous than or inconsistent with U.S. law, or the foreign law is administered or enforced in a manner inconsistent with U.S. standards.” CCIPS ultimately supports replacing the “any applicable law” provision with a notice that makes it clear to users in this class that the security exemption does not absolve them of their responsibility to follow laws or is a safe harbor or defense to liability for violating other laws. DOJ Class 13 Reply Comments, at 4-5. NTIA recognizes, however, that CCIPS is not in favor of modifying the text related to the “lawfully acquired,” “purpose,” and “security” provisions. *Id.* at 4-6.

<sup>571</sup> As noted at the beginning of this discussion, NTIA is not providing a definition for good-faith security research in its proposed regulatory text but, given the proposed requests, assumes that such a definition will likely be incorporated in the Librarian’s final rules if the current exemption is at least renewed.

research. This exemption does not obviate the need to comply with all other applicable laws and regulations.

### **Class 14 – Class 14(a) (Computer Programs – Preservation) and 14(b) (Video Games – Preservation)**

Proponents seek renewal and expansion of the current computer programs—software preservation exemption (“software preservation exemption”) and computer programs—video games preservation exemption (“video games preservation exemption”), which allow for preservation activities so long as those activities occur within the physical premises of eligible libraries, archives, and museums, among other qualification requirements.<sup>572</sup> Because petitioners demonstrated the continuing need for these exemptions, the Copyright Office intends to recommend their renewal, and the petitions were unopposed, NTIA urges the Librarian to adopt exemptions that at minimum include the previously exempted classes of work and use cases.<sup>573</sup>

Software Preservation Network (SPN) and LCA seek to expand the scope of both exemptions in a similar way. The requested expansion would eliminate the requirement that computer programs and video games that fall under the exemptions not be distributed or made available outside of the physical premises of the eligible institutions, thereby permitting remote access to the copyrighted works.<sup>574</sup> Proponents generally assert that the current physical premises requirement in the exemptions prevents eligible institutions, which have preservation-oriented missions, from carrying out those missions and providing access to lawfully acquired works to a variety of individuals, including preservationists, librarians, researchers, and educators.<sup>575</sup> Opponents JCCO indicate their support for “legitimate, lawful preservation efforts” but generally assert that the proposals, in particular to video games, could lead to widespread distribution of unauthorized copies of copyrighted works to the general public for

<sup>572</sup> See 37 C.F.R. §201.40(b)(12), (13).

<sup>573</sup> See 2020 NPRM, 85 Fed. Reg. 65293, 65301.

<sup>574</sup> Class 14(a) Petition for New Exemption of Software Preservation Network and Library Copyright Alliance (SPN Class 14a Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Software%20Preservation%20Network%20&%20Library%20Copyright%20Alliance%20-%20202.pdf>; Class 14(b) Software Preservation Network and Library Copyright Alliance Petition for New on Video Games (SPN Class 14b Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Software%20Preservation%20Network%20&%20Library%20Copyright%20Alliance%20-%20201.pdf>.

<sup>575</sup> Class 14 Initial Comments of SPN and LCA (SPN Class 14 Initial Comments), Docket No. 2020-11, at 4-12,

[https://www.copyright.gov/1201/2021/comments/Class%2014a%20and%2014b\\_InitialComments\\_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/Class%2014a%20and%2014b_InitialComments_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf).

purposes beyond what opponents consider preservation uses, impacting the marketplace and value for these works and potentially other works not contemplated by the exemptions.<sup>576</sup>

**NTIA Position:** NTIA recommends expansion of the software and video game preservation exemptions to accommodate the distribution and making available of works covered under these exemptions outside of the physical premises of the eligible institutions, with modifications as described below. NTIA further recommends that the eligibility requirements for libraries, archive, and museums in the software preservation exemption be adopted into the video game preservation exemption.<sup>577</sup> The interests of copyright holders should be adequately protected through this rulemaking, and the additional eligibility requirements for institutions in the context of off-premises access—in particular the implementation of reasonable digital security measures—are essential to this goal while helping ensure that legitimate activities under the exemption continue.

**Analysis:** It is critical to afford eligible libraries, archives, and museums as much flexibility as possible under the law to make noninfringing uses of copyrighted works, and the nature of these noninfringing uses does not necessarily become infringing by removing the physical premises limitation. Proponents indicated that their efforts have been impeded due to the physical premises requirement.<sup>578</sup> The cause of the adverse effects is ultimately the

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<sup>576</sup> Opponents list several concerns: 1) the proposed regulatory language by proponents does not limit the usage of unauthorized copies created through circumvention in any way, appearing to “allow for the provision of unauthorized, remote access to complete works for the general public, including for entertainment purposes, and even if the copyright owner has since reissued the work (or issued a derivative version of the work) or may do so in the future”; 2) the proposals “are not focused on access controls impeding preservation of works for researchers, teachers, and future generations” and the “proposed expansions [as compared to the existing exemptions] focus on providing the *public* with the ability to use works without limitation and without compensation to copyright owners”; and 3) to the extent that the expansion of this proposal would permit circumvention of access controls on video game consoles by more individuals, it increases the risk that “consoles could be used to play unauthorized copies of games or make unauthorized copies of other kinds of media available on consoles . . . .” *Id.* (internal footnoted omitted) (emphasis in original). Class 14 Opposition Comments of Motion Picture Association, *et al.* (MPA Class 14 Opposition Comments), Docket No. 2020-11, at 2-3, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_14a%20and%2014b\\_Opp'n\\_Joint%20Creators%20and%20Copyright%20Owners.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_14a%20and%2014b_Opp'n_Joint%20Creators%20and%20Copyright%20Owners.pdf). The ESA filed additional opposition comments in Round 2 specific to Class 14(b). Class 14 Opposition Comments of the Entertainment Software Association (ESA Class 14 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_14b\\_Opp'n\\_Entertainment%20Software%20Association.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_14b_Opp'n_Entertainment%20Software%20Association.pdf). *See also* April 19 Hearing Transcript, Remarks of Steve Englund, at 666 (Apr. 19, 2021) (“[T]here aren’t a lot of limitations [in proponents’ various versions of their proposals]. And so, I think the Office’s task is to analyze the full possible scope of what is permitted under any particular regulations under consideration. And I think, based on what we’re hearing so far, it’s one that would allow any public library in America to engage in circumvention of TPMs without a limitation to university libraries or research purposes, or much of anything else.”).

<sup>577</sup> 37 C.F.R. §201.40(b)(13)(ii) (software preservation exemption eligibility requirements for libraries, archives, and museums).

<sup>578</sup> *See, e.g.*, SPN Class 14 Initial Comments, at 8-12.

prohibition on circumvention, but the need to expand the scope of the exemptions is particularly clear in light of the ongoing pandemic, since, as proponents indicate, conditions have further prevented access to the eligible institutions, and, by consequence, the lawfully acquired works, and curtailed a variety of activities permitted under the current exemptions.<sup>579</sup> Numerous first-hand accounts from librarians and other individuals at the institutions serve to strengthen the record by demonstrating that the harms are real and happening now, and not merely hypothetical.

NTIA has previously described why the uses envisioned by these exemptions are likely noninfringing and, in particular, fair uses.<sup>580</sup> In 2015 and 2018, the Copyright Office recommended and the Librarian adopted preservation exemptions with the understanding that the uses covered in the exemptions are likely noninfringing uses, including fair uses.<sup>581</sup> Here, then, one of the Librarian’s considerations should be whether the removal of the physical premises limitation—that is, providing the opportunity for off-site or remote access—changes this analysis in such a way that the uses become likely infringing.<sup>582</sup> NTIA cautions against substantially reopening the discussion on every matter addressed in the current exemptions that would have been better served in discussion of renewing the exemptions, unless the specific proposed changes merits such reopening.<sup>583</sup>

Proponents highlight several provisions of copyright law that may be relevant to this proposal: the TEACH Act, the Music Modernization Act (MMA), and Section 108 of Title 17.<sup>584</sup> It is unlikely that the TEACH Act can accommodate the uses contemplated in the modified exemptions.<sup>585</sup> The MMA reflects steps Congress has taken to “ke[ep] pace with the

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<sup>579</sup> *Id.* at 9-10, 13-14. As proponents indicate, removing the physical premises requirement “would provide access to those individuals with significant logistical and financial limitations, including those . . . affected by U.S. travel restrictions” (internal footnote omitted) (citing conversation with Kyle K. Courtney, Copyright Advisor and Program Manager at Harvard Library).

<sup>580</sup> 2018 NTIA Letter, at 65-68, 68-69; 2015 NTIA Letter, at 65-68.

<sup>581</sup> *See generally* 2015 Final Rule, 80 Fed. Reg. 65944; 2018 Final Rule, 83 Fed. Reg. 54010.

<sup>582</sup> *See* April 19 Hearing Transcript, Remarks of Kevin Amer, at 688.

<sup>583</sup> Substantive discussion about certain matters, to the extent they do not impact the discussion for modification, are best handled at the petition for renewal stage. The Register has explained that the streamlined process includes “the same evidentiary standard in recommending the renewal of exemptions as for first-time exemptions requests” and that determinations are not automatically the same as those from the previous rulemakings. *See* 2020 NPRM, 85 Fed. Reg. 65293, 65294 (internal citation and footnote omitted).

<sup>584</sup> SPN Class 14 Initial Comments, at 22-23.

<sup>585</sup> April 19 Hearing Transcript, Remarks of Mayze Teitler, at 716-17. (“[I]t’s pretty clear that the highly specific standards in the TEACH Act limit usability in a degree that’s just far too great and ends up chilling a lot of otherwise fair and permissible uses . . . [i]f we did import [specific limitations in the TEACH Act], because libraries are so risk averse, they probably, as school[s] have, in the TEACH Act, would shy away from using the exemption at all, and end up . . . choosing not to engage in activities that might be fair. So, I think we have to be really sensitive to the organizations we’re talking about here and what their behavior’s like in the real world.”); *see also* April 19 Hearing Transcript, Remarks of Henry Lowood, at 718 (“[U]nder COVID, we spent a lot of time thinking about the TEACH Act and what it allowed us to do, and it is the case it wasn’t particularly helpful in coming up with clear guidelines about the kinds of questions we were getting as instructors were frantically moving from all face-to-face

music industry to reflect changes in consumer preferences and technological developments,”<sup>586</sup> and in this regard does help highlight some of Congress’ recent considerations in the application of copyright law to the digital age (particularly on noncommercial use of copyrighted materials), but the legislation would not appear to be a primary basis for the expansion of this exemption. While Section 108 of Title 17 is indicative of the value that eligible institutions and their activities have in copyright law and in society and can serve as a basis for preservation exemptions, Section 108 should not be the sole consideration for noninfringing uses in this rulemaking process, as that section does not comprehensively address modern digital preservation scenarios.<sup>587</sup> However, while all three would not serve as the exclusive basis for an exemption in this context, proponents explain the critical role of these provision within the ambit of fair use: “In considering whether a particular use should be favored by fair use, and in particular in weighing the first factor, courts look to other parts of the Copyright Act, and to other federal policies, for evidence showing a particular use advances the goals of copyright or of federal policy more generally.”<sup>588</sup>

Proponents persuasively explain how providing remote access for preservation purposes is likely a fair use, including the intermediate steps necessary to provide such access.<sup>589</sup> As

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teaching to all-online teaching and trying to figure out how they could do the equivalent of a screening in a course, you know, showing a film or showing a game to a group of students in real time.”).

<sup>586</sup> SPN Class 14 Initial Comments, at 26 (citing S. REP. 155-339 at 1 (2018),

[https://www.copyright.gov/legislation/mma\\_conference\\_report.pdf](https://www.copyright.gov/legislation/mma_conference_report.pdf)).

<sup>587</sup> See Section 108 Discussion Document, at 1 (“The current section 108 language is insufficient to address digital works and digital transmissions, does not reflect the way that libraries and archives actually operate, and excludes museums, among other constraints.”); see also 2018 NTIA Letter, at 69; 2018 Register’s Recommendation, at 239-40. The Copyright Office at the hearings noted in particular that section 108(i) excludes audiovisual works, so the proponents would have to look beyond section 108 to cover video games. See April 19 Hearing Transcript, Remarks of Kevin Amer, at 673. However, in the context of the sought expansion for software preservation, NTIA notes that 17 U.S.C. § 108(i) does not exclude computer programs from the rights of reproduction and distribution covered under Section 108. On section 108 reform, NTIA remains optimistic that efforts to modernize Section 108 will be successful and can help address the needs expressed in this rulemaking, but it does not believe that the rulemaking should wait for such changes when there are clear needs today that the Librarian can address under her authority in this rulemaking.

<sup>588</sup> SPN Class 14 Initial Comments, at 22-23 (citing *Authors Guild v. HathiTrust* 755 F.3d at 101–02 to indicate the court there “survey[ed] provisions in the Copyright Act and in federal law generally favoring access for the blind and print-disabled as part of the first factor inquiry.”).

<sup>589</sup> See SPN Class 14 Initial Comments, at 15-22. Proponents cite to a recent decision in the District Court for the Southern District of Florida, *Apple Inc., v. Corellium*, No. 19-81160-CIV, 2020 WL 8642269 (S.D. Fla. Dec. 29, 2020) (*Corellium*), to support their assertion that the development of a remote access mechanism to access lawfully acquired works for research purposes can be within fair use; Class 14 Reply Comments of Software Preservation Network and Library Copyright Alliance (SPN Class 14 Reply Comments), Docket 2020-11, at 9-11,

[https://www.copyright.gov/1201/2021/comments/reply/Class%2014b\\_Reply\\_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2014b_Reply_Software%20Preservation%20Network%20and%20Library%20Copyright%20Alliance.pdf). Apple has more recently filed notice to appeal part of that decision involving claims of copyright infringement. Proponents also cite to cases discussed in previous rulemakings, including *Authors Guild, Inc. v. HathiTrust*, 755 F.3d 87 (2d. Cir.

NTIA also noted in 2018, courts have favored digital efforts that provide access to works or parts of works as a public benefit,<sup>590</sup> and the proposed exemption would continue to support that fair use. Moreover, as the proponents note, the authorized uses that the exemption would allow have been found to be transformative.<sup>591</sup> Even if the efforts here are not transformative, they are for a “favored purpose” (preservation) and non-commercial, which weighs in favor of fair use. The second factor generally weighs in favor of opponents when elements that are more expressive are at issue, and in favor of proponents when functional elements are at issue,<sup>592</sup> though this factor is not as dispositive when preservation is “necessary to allow continued legitimate use of the work.”<sup>593</sup> For the third factor, both parties recognize that entire works would be copied (as with the current exemptions); however, as proponents note, “this factor can favor fair use when entire works are used because copying the entirety of a work is sometimes necessary to make a fair use” and “research uses often require access to the entire work to support complete examination of its elements.”<sup>594</sup> Proponents also explain why providing remote access itself may not always be possible without the entire work, as “[e]mulation often requires the entire codebase to run functional software.”<sup>595</sup> In other words, the third factor likely weighs in favor proponents because the amount and substantiality of the copying is reasonable in relation to the purpose of the copying.

Under the fourth factor, effects of the use on the market, the discussion between parties is primarily about the video game preservation exemption. Opponents contend that unlike the current exemption, this proposal would “enable remote gameplay by the public without restriction, which poses a very significant risk of harm to the substantial and growing market for both derivative works and reissues of video games.”<sup>596</sup> Opponents recommend that the Register assume that the proposed exemptions would enable providing access to widely available video games.<sup>597</sup> NTIA notes that such titles would appear to not be covered under the current

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2014) (*HathiTrust*), to support the view that fair use can support digital remote access in some instances; SPN Class 14 Reply Comments, at 9-10. NTIA sees the decisions cited by proponents, alongside decisions extensively discussed in previous rulemakings such as *The Authors Guild, Inc., et al. v. Google, Inc.*, 804 F.3d 202 (2d Cir. 2015)—while not strictly about the activities covered here—as showing strong support for digital access efforts that promote research and scholarship. On remote access specifically, the decisions do not appear to have treated this as dispositive; in other words, issues like physical premises restrictions were not dispositive to findings of fair use, including where remote access to copyrighted works ranged from widespread (*e.g.*, a member of the public with Internet access) to a more curated environment (individuals vetted by a company), and even where significant differences existed in the level of supervision between remote and on-premises access for the same activities (*e.g.*, less supervision in one context compared to the other).

<sup>590</sup> See 2018 NTIA Letter, at 68.

<sup>591</sup> See SPN Class 14 Reply Comments, at 9-10.

<sup>592</sup> SPN Class 14 Initial Comments, at 18.

<sup>593</sup> See 2018 Register’s Recommendation, at 243 (citing 2015 Register’s Recommendation, at 338).

<sup>594</sup> SPN Class 14 Initial Comments, at 19.

<sup>595</sup> See *id.*

<sup>596</sup> ESA Class 14 Opposition Comments, at 13.

<sup>597</sup> April 19 Hearing Transcript, Remarks of Steve Englund, at 720 (“[T]he Office’s analysis needs to look at the broadest aspects of the activities permitted here. So, you’ve got to assume that the games that

exemptions or proposed exemptions unless they are no longer reasonably available in the commercial marketplace, which would suggest they are not “the most popular titles of three years ago.”<sup>598</sup> Copyrighted works that are reasonably available in the commercial marketplace would fall outside of the exemption.<sup>599</sup> Although the size of the “derivative” or “reissue” market is disputed,<sup>600</sup> and NTIA does not come to a conclusion about its actual scope, even assuming that those markets are significant, NTIA is unclear whether the proposed exemption would always do what opponents claim: act as a substitute, or competition, for newer games.<sup>601</sup> As proponents note, one of the reasons to preserve older works is precisely because they are different from newer works.<sup>602</sup> And NTIA agrees with the Copyright Office’s previous conclusion that “[n]ot all such games will be reintroduced” and that reintroduced games do not always include the same functionalities as the original.<sup>603</sup>

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we’re talking about providing access to are the most popular titles of three years ago that may be part of a franchise that has a current edition out in the market now, and through that lens, apply fair use analysis.”).<sup>598</sup> *See id.*

<sup>599</sup> SPN Class 14 Reply Comments, at 8 (“To the extent a game is made available by its creators, it would not be eligible for the exemption.”); *id.* at 22 (“The proposed exemption is limited to research and academic uses which do not supersede market transactions because the proposed exempted works are *out-of-commerce*, which are definitionally unavailable and often unusable on modern consoles or computers.” (emphasis in original)).

<sup>600</sup> *Compare* ESA Class 14 Opposition Comments, at 2-4 (noting that “[v]ideo games, like other types of creative works, are also regularly reintroduced or reimagined” and providing a list of video games titles to support that statement), *with* SPN Class 14 Reply Comments, at 15 (asserting that some of the titles cited by opponents “represent just a tiny fraction of the games produced over the years . . .”).

<sup>601</sup> ESA Class 14 Opposition Comments, at 14 (“If a copyright owner chooses to suspend commercialization of an older game to help drive demand for a successor to that game, its new title should not have to compete with the predecessor version made available to the public by a self-styled archives.”).

<sup>602</sup> *See, e.g.*, April 19 Hearing Transcript, Remarks of Kendra Albert, at 714-15 (“I think the most evocative example we found was the Baldur’s Gate Enhanced Edition which actually changed two of the characters’ sexualities between the original release and re-release. So, I, colloquially, have been calling this the Han shot first problem . . .”). NTIA does not take a position or mean to imply that the original video game referenced in proponents’ example would be subject to the video game preservation exemption, but it does indicate that there are material differences relevant to preservation.

<sup>603</sup> 2015 Register’s Recommendation, at 339. One of the examples offered by opponents as an example of a reintroduced game, *NieR Replicant*, may help illustrate this point. ESA Class 14 Opposition Comments, at 4. NTIA offers no position or means to imply in any way whether the original *NieR* released in 2010 would be subject to the current exemption. As background, *NieR* was originally released in two versions in Japan: *NieR Replicant* and *NieR Gestalt*. Shilling, Chris, “Nier. And yet so far.,” Eurogamer (Apr. 22, 2010), <https://www.eurogamer.net/articles/nier-review>; Yang, George, “The creators of Nier Replicant on the little changes that make a big difference,” Polygon (Apr. 23, 2021), <https://www.polygon.com/interviews/22399273/nier-replicant-automata-sequels-prequels-dlc-interview>. Each version featured a different protagonist, and *Nier Gestalt* became the basis for versions of the game released outside of Japan. *See id.* (“According to a previous interview, *Gestalt* was chosen because, at that time, it was thought that the middle-aged protagonist would be more appealing to a global audience.”) (internal hyperlink omitted). The game released in 2021, *NieR Replicant ver.1.22474487139...* (“*NieR 2021*”) is advertised as “an updated version of *NieR Replicant*, previously

Proponents have also highlighted other provisions in copyright law that may be relevant to this proposal: the TEACH Act, the Music Modernization Act (MMA), and Section 108 of Title 17.<sup>604</sup> It is unlikely that the TEACH Act can accommodate the uses contemplated in the modified exemptions.<sup>605</sup> The MMA reflects steps Congress has taken to “ke[ep] pace with the music industry to reflect changes in consumer preferences and technological developments,”<sup>606</sup> and in this regard does help highlight some of Congress’ recent considerations in the application of copyright law to the digital age (particularly on noncommercial use of copyrighted materials), but the legislation would not appear to be a primary basis for the expansion of this exemption. While Section 108 of Title 17 is indicative of the value that eligible institutions and their activities have in copyright law and in society and can serve as a basis for preservation

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only released in Japan.” *NieR Replicant ver.1.22474487139...*, Steam, available at [https://store.steampowered.com/app/1113560/NieR\\_Replicant\\_ver122474487139/](https://store.steampowered.com/app/1113560/NieR_Replicant_ver122474487139/). Assuming *arguendo* that the original *NieR* (either *Replicant* or *Gestalt*) is subject to the exemption, this example helps illustrate proponents’ contention that re-releases, including updated re-releases, do not always substitute for the original works, as they may contain significant changes to game elements and preservationists seek to look at the game in the way it was originally released. In other words, they are different games. See SPN Class 14 Initial Comments, at 19-20. Although the game in *NieR 2021* appears to be similar to the original Japanese version, in addition to visual updates, *NieR 2021* includes “differences in combat, which has been revamped to play more like *NieR: Automata* [a sequel].” Gamespot, *Nier (Original) vs Nier Replicant Ver.1.2247 Graphics Comparison*, Youtube (Apr. 23, 2021), [https://www.youtube.com/watch?v=oSla4s7D\\_KY](https://www.youtube.com/watch?v=oSla4s7D_KY); Yang, George, “The creators of Nier Replicant on the little changes that make a big difference,” Polygon (Apr. 23, 2021), <https://www.polygon.com/interviews/22399273/nier-replicant-automata-sequels-prequels-dlc-interview> (“However, in this new version of the game, the player can now fire off magic attacks and execute combos with their weapon simultaneously, resulting in the game’s combat being much more fluid than the original’s. Additionally, they no longer have to stand still when charging [floating book companion Grimoire] Weiss’ magic spells, so they can stylishly hop around, just like [the *NieR* producer] intended.”); Saltzman, Mitchell, “*NieR Replicant Ver. 1.22474487139* Review,” IGN (Apr. 27, 2021), <https://www.ign.com/articles/nier-replicant-ver-122474487139-review> (“However, one big change, and one of the reasons why I think it’s impossible to label [*NieR 2021*] just as a remaster, is the fact that every character is now voiced. This is a huge improvement that goes a long way in bringing Nier’s otherwise-sleepy world to life.”).

<sup>604</sup> SPN Class 14 Initial Comments, at 22-23.

<sup>605</sup> April 19 Hearing Transcript, Remarks of Mayze Teitler, at 716-17. (“[I]t’s pretty clear that the highly specific standards in the TEACH Act limit usability in a degree that’s just far too great and ends up chilling a lot of otherwise fair and permissible uses . . . [i]f we did import [specific limitations in the TEACH Act], because libraries are so risk averse, they probably, as school[s] have, in the TEACH Act, would shy away from using the exemption at all, and end up . . . choosing not to engage in activities that might be fair. So, I think we have to be really sensitive to the organizations we’re talking about here and what their behavior’s like in the real world.”); see also April 19 Hearing Transcript, Remarks of Henry Lowood, at 718 (“[U]nder COVID, we spent a lot of time thinking about the TEACH Act and what it allowed us to do, and it is the case it wasn’t particularly helpful in coming up with clear guidelines about the kinds of questions we were getting as instructors were frantically moving from all face-to-face teaching to all-online teaching and trying to figure out how they could do the equivalent of a screening in a course, you know, showing a film or showing a game to a group of students in real time.”).

<sup>606</sup> SPN Class 14 Initial Comments, at 26 (citing S. REP. 155-339 at 1 (2018), [https://www.copyright.gov/legislation/mma\\_conference\\_report.pdf](https://www.copyright.gov/legislation/mma_conference_report.pdf)).

exemptions, Section 108 should not be the sole consideration for noninfringing uses in this rulemaking process, as that section does not comprehensively address modern digital preservation scenarios.<sup>607</sup> However, while all three would not serve as the exclusive basis for an exemption in this context, proponents explain the critical role of these provision within the ambit of fair use: “In considering whether a particular use should be favored by fair use, and in particular in weighing the first factor, courts look to other parts of the Copyright Act, and to other federal policies, for evidence showing a particular use advances the goals of copyright or of federal policy more generally.”<sup>608</sup>

In making a recommendation to remove the physical premises requirement for software and video game preservation, NTIA is cognizant of the long history of exemptions for preservation in this rulemaking process, and the careful balance of interests that the Librarian tries to craft as the Librarian aligns the final rules with the Section 1201 statutory factors and copyright law. The Librarian, following the Copyright Office’s recommendations in 2015 and 2018, has granted usable exemptions for the preservation of software and video games. Copyright infringement is a legitimate concern, and NTIA believes that other aspects of the current exemption properly manage the risks that opponents have expressed in this rulemaking process. For example, eligible institutions in both exemptions must have “lawfully acquired” the software or video games at issue, and the software or video games must “no longer [be] reasonably available in the commercial marketplace.”<sup>609</sup> The eligible institutions must also carry out their activities “without any purpose of direct or indirect commercial advantage.”<sup>610</sup> Thus, NTIA views the current exemptions, and the proposed expansions, as not including the substitution of copyrighted works reasonably available in the marketplace or eligible institution preservation efforts done for direct or indirect commercial advantage.<sup>611</sup> For the software

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<sup>607</sup> See Section 108 Discussion Document, at 1 (“The current section 108 language is insufficient to address digital works and digital transmissions, does not reflect the way that libraries and archives actually operate, and excludes museums, among other constraints.”); see also 2018 NTIA Letter, at 69; 2018 Register’s Recommendation, at 239-40. NTIA remains optimistic that efforts to modernize Section 108 will be successful but does not believe that the rulemaking should wait for such changes when there are clear needs today that the Librarian can address under her authority in this rulemaking. However, in the context of the sought expansion for software preservation, NTIA notes that 17 U.S.C. § 108(i) does not exclude computer programs from the rights of reproduction and distribution covered under Section 108.

<sup>608</sup> SPN Class 14 Initial Comments, at 22-23 (citing *Authors Guild v. HathiTrust* 755 F.3d at 101–02 to indicate the court there “survey[ed] provisions in the Copyright Act and in federal law generally favoring access for the blind and print-disabled as part of the first factor inquiry.”).

<sup>609</sup> 37 C.F.R. §201.40(b)(13)(i); 37 C.F.R. §201.40(b)(12)(ii).

<sup>610</sup> 17 U.S.C. § 108(a)(1).

<sup>611</sup> The ESA is also concerned that a modified exemption will also “expand the universe of those eligible to perform circumvention by making the exemption available to entities without a physical premises devoted to preservation and scholarly research—which could potentially include anyone with a collection of legacy games they want to make available online without charge. That would, in turn, entitle the additional organizations to circumvent the TPMs on consoles pursuant to Section 201.40(b)(iii). The linkage between hacking consoles and piracy has been thoroughly explored in past proceedings and remains a serious issue today.” ESA Class 14 Opposition Comments, at 14. NTIA does not discount the

preservation exemption in particular, the Librarian adopted strong requirements on the eligibility of libraries, archives, and museums, which require them to, among other things, implement “reasonable digital security measures as appropriate for the activities permitted” by the exemption.<sup>612</sup> It would be appropriate, as NTIA recommends, to mirror that language (and the other eligibility factors) in the video game preservation exemption.

NTIA agrees that software and video game infringement are legitimate concerns that must be addressed vigorously. In the context of this proceeding, NTIA reiterates that the exemptions granted in the rulemaking do not provide eligible institutions or their patrons with a license to infringe. The rulemaking does not allow patrons to engage in infringing activities with the copies of works preserved under these exemptions. Likewise, if eligible institutions also engage in activities outside of the exemption that violate copyright law, whether directly or indirectly (*e.g.*, vicarious or contributory copyright infringement), the 1201 rulemaking offers no safe harbor and such activities may be a violation of Section 1201. It is each eligible institution’s responsibility to assess and bear the risk associated with falling outside of the exemption, including being subject to the various remedies copyright law provides.

As the rulemaking has progressed, proponents offered several additional limitations to the proposed expansion for video game preservation,<sup>613</sup> though opponents do not agree that these restrictions address opponents’ concerns.<sup>614</sup> There is one limitation that proponents advance that requires additional consideration. Though they do not think it necessary for an exemption,

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concern that ESA and other copyright holders and their representatives have in this regard, but notes that the video game preservation exemption should be viewed as a whole, without isolating a single factor or requirement. On balance, the risk here can be reduced by the additional eligibility requirements found in the software preservation exemption, including the need for the institutions to adopt reasonable security requirements to protect the covered activities under the exemption and that their staff or volunteers provide professional services normally associated with the institution. If the institution cannot meet those requirements (among others), they are not eligible. If the institutions go beyond what is permitted under the exemption, they are also not eligible. NTIA, as noted above, is recommending that software preservation exemption eligibility requirements be added to the video game preservation exemption as well.

<sup>612</sup> 37 C.F.R. §201.40(b)(13)(ii)(E).

<sup>613</sup> SPN Class 14 Reply Comments, at 5-8; Class 14 Post-Hearing Letter of SPN and LCA (SPN Class 14 Post-Hearing Letter) (May 13, 2021), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-14-SPN-and-LCA-Post-Hearing-Letter-Response.pdf>.

<sup>614</sup> Class 14 Post-Hearing Letter of Joint Creators and Copyright Owners (Joint Creators Class 14 Post-Hearing Response), Docket No. 2020-11, at 2, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class%2014%20Joint%20Creators%20and%20Copyright%20Owners%20Post-Hearing%20Response.pdf> (providing that “[w]hile [proponents’] notice concept [offered in Round 3] provided little comfort that preserved games would be protected from inappropriate use, the proposal in [proponents’] most recent submission [in the post-hearing question round] would permit an even broader scope of use.”). Proponents did not offer similar limitations to the software preservation exemption as they “do not believe that opponents have provided evidence of the necessity of a similar restriction” in that exemption. *See* SPN Class 14 Post-Hearing Letter. NTIA agrees that the opposition on the record to Class 14(a) was not as developed as the opposition to Class 14(b), but NTIA notes that that detail alone should not be a sufficient reason to approve or deny a petition.

proponents in their Round 3 Reply comments noted they were open to consider a limitation modeled after sections 108(d)(1) and (e)(1). Specifically, under this approach, the eligible institutions would “only serve users where [the institutions] have no notice that access is for reasons other than private study, scholarship, or research.”<sup>615</sup> The provisions proponents cite do serve as useful analogues to determine the propriety of permitting copies of a work outside of the physical premises of institutions covered by section 108—and dealing with these provisions is not new for those institutions.<sup>616</sup> Proponents represent a number of the institutions that would benefit from the expanded exemptions and seem comfortable with the notice limitation, perhaps because the institutions do have a long history of dutifully observing copyright law and implementing processes for doing so.<sup>617</sup>

Under sections 108(d)(1) and (e)(1) the eligible institutions appear to have no affirmative obligation to ascertain a patron’s intended use of the copyright works.<sup>618</sup> Opponents raise this as a concern,<sup>619</sup> and suggest that such limitation maybe was appropriate in a different context when coupled with the requirement that the work is made available upon the request of a user.<sup>620</sup> Even when considering all the conditions in sections 108(d) and (e), it could be interpreted that libraries and archives do not need to have notice or ask whether the use *would* be limited to “private study, scholarship, or research.”<sup>621</sup> However, as the record indicates, not only do the

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<sup>615</sup> SPN Class 14 Reply Comments, at 7 (internal quotation marks omitted). Although opponents appear to continue to be open to including this limitation, their post-hearing letter included a different approach that they claim is “more direct language that covers fair uses.” SPN Class 14 Post-Hearing Letter, at 1.

<sup>616</sup> April 19 Hearing Transcript, Remarks of Mayze Teitler, at 682 (“[Libraries] make these kinds of decisions constantly. They are attuned to what scholars are coming in to study. They are aware of the types of decisions they have to make to comply with copyright law. We’re not talking about who are particularly not risk-conscious.”).

<sup>617</sup> See *id.* at 682-83.

<sup>618</sup> Indeed, the sections focus on the “notice” that libraries and archives have, not on the actions required to obtain that “notice.” See James S. Heller, *The Impact of Recent Litigation on Interlibrary Loan and Document Delivery*, 88 *LAW LIBR. J.* 158, 163-64 (1996) (“Although there is no affirmative duty to ascertain the requestor’s intended use of the materials, to remain safe, a library should avoid making copies for for-profit information brokers.”).

<sup>619</sup> April 19 Hearing Transcript, Remarks of J. Matthew Williams, at 681 (“[U]nless you proactively go out and try to ask someone to admit that they’re going to do something other than research, the language doesn’t have much teeth. So it’s hard to imagine a situation where someone who’s a beneficiary of the exemption wouldn’t be able to qualify under that language.”).

<sup>620</sup> See April 19 Hearing Transcript, Remarks of Steve Englund, at 683-84.

<sup>621</sup> See 2 Nimmer on Copyright § 8.03[E](2)(c) (2021) (“[Sections 108(d)(1) and (e)(1) are], moreover, couched in the negative. The library need not have notice that the user’s purpose is in fact for private study, scholarship or research. As long as the library had no notice of the user’s underhanded purpose, the library exemption remains available.”). This is not to suggest that libraries and archives do not take any steps to address infringement – they do, as noted throughout the record. Indeed, sections 108(d)(2) and (e)(2) require libraries and archives to display prominently at the place where orders are accepted a “warning of copyright” as prescribed by the Register of Copyrights, suggesting that libraries and archives have some responsibility to at least make their patrons aware that the works are under copyright protection and of the restrictions imposed by these provisions. See 17 U.S.C. §§108(d)(2), (e)(2). Moreover, under the current warning, the library or archive must indicate that a reproduction is not to be

institutions already take precautions to protect their collections and their dissemination as appropriate (and to follow sections 108(d) and (e)), there is an important limitation in the software preservation exemption that is not present in section 108 that alters this dynamic in a direction that more carefully takes into account noninfringing uses: the need for institutions to implement “reasonable digital security measures as appropriate *for the activities permitted under (b)(13)*.”<sup>622</sup> NTIA reads this as not only referring to the need to actually implement reasonable digital security measures to protect the corpus itself, but also measures to protect the way the corpus is used – and proponents recognize that both of these types of protections are important.<sup>623</sup> The security measures provision thus already accounts for the protection needed under the exemption to cabin the uses appropriately and protect the copies themselves, as proponents have noted.<sup>624</sup>

In any event, NTIA would not recommend imposing a notice limitation at this time that is modeled exactly on the language that proponents have submitted. NTIA is not, in principle, opposed to including additional provisions of section 108 into the preservation exemptions, with modifications as needed.<sup>625</sup> Furthermore, NTIA understands the longstanding value of “notice” in sections 108(d)(1) and (e)(1).<sup>626</sup> At the same time, very careful attention must be paid when replicating 108(d)(1) and (e)(1) here, as introducing a notice limitation could have a significant impact on legitimate activities and carry unintended consequences depending on its implementation. Should there be a notice limitation, it must meaningfully protect the rights of

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used for any purpose other than “private study, scholarship, or research.” 37 C.F.R. §201.14(b). The warning also mentions that if the user uses the reproduction in excess of “fair use,” the user may be liable for copyright infringement. *Id.* The libraries and archives also “reserve[] the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.” *Id.* As such, libraries and archives can take action against suspected infringement (at least suspected future infringement), which is consistent with their current practices, and, as noted in this section, with a requirement that the institutions adopt reasonable digital security measures.

<sup>622</sup> 37 C.F.R. §201.40(b)(13)(ii)(E) (emphasis added). The provision requiring trained staff is also particularly relevant. 37 C.F.R. §201.40(b)(13)(ii)(C). These and other provisions help ensure that the eligible institutions can determine and take action on activities that fall outside of the exemption.

<sup>623</sup> Class 14 *Ex Parte* Letter of SPN and LCA (SPN Class 14 *Ex Parte* Letter) (June 25, 2021) <https://www.copyright.gov/1201/2021/ex-parte/Class-14-Ex-Parte-Meeting-Summary.pdf> at 1 (“SPN and LCA also clarified how libraries and other memory institutions are accustomed to taking reasonable security measures to protect copyrighted works, and the eligibility language in our proposed expansion allows them to tailor those measures *to the types of access (and works)*.”) (emphasis added).

<sup>624</sup> April 19 Hearing Transcript, Remarks of Kendra Albert, at 681 (“[Opponents] have overlooked the fact that there are requirements built into the eligibility criteria of using reasonable digital security measures.”); *Id.* at 685 (“So, that already says that [opponents’] parade of parables [sic] where the public library is, sort of, making these games available for free, well, unless we think that’s a reasonable digital security measure, and I think it’s clear that [opponents] don’t, right, then that’s not an eligible institution under the exemption.”).

<sup>625</sup> For example, in the context of Class 5, NTIA does suggest adopting a modified version of section 108 to define the contours of commercial unavailability of the copies of works at issue there.

<sup>626</sup> In the Section 108 Discussion Document, the Copyright Office concluded that it “sees no need to depart from this [notice] requirement, and has kept the same requirement in the Model Statutory Language.” *See* Section 108 Discussion Document, at 38.

copyright holders *and* not hinder noninfringing uses, including those of patrons served by the institutions. NTIA would be concerned to the extent that the language in sections 108(d)(1) and (e)(1) could be read to establish a regime that simply allows the issuance of any type of “notice,” even if it is not well-supported, and in that respect lead the institutions to have little choice but to automatically accept the “notice” at face value and curb potential legitimate activities.<sup>627</sup> A notice limitation should not unreasonably disturb the relationship between the institutions and their patrons (including the patron’s privacy), should not curtail the ability to make non-infringing uses as appropriate, and should ensure that copyright holder interests are adequately protected. Moreover, a “notice” provision should not undermine the concept of notice itself by, for example, enabling the submission and acceptance of notices with no material support. There also must be recognition that while the institutions serve their patrons, they are not the same entities, which is a reality recognized in section 108.<sup>628</sup> Therefore, NTIA at this time does not support proponents’ proposal to add a “notice” limitation in this exemption using the text proponents suggest as a possible approach.<sup>629</sup> Should such a provision be included, NTIA recommends that the provision be drafted in a way that permits libraries to determine whether they have received well-founded notices, and mitigates unreasonable and specious notices, including notices that have no real material support, are merely speculative, or that are being submitted to undermine legitimate activities under the exemption.<sup>630</sup>

Of course, this does not mean that the institutions have no responsibility over the preserved works in their collections. The opposite is the case: in addition to having well-trained staff, the institutions must implement reasonable digital security measures as appropriate for the activities permitted under the exemption. NTIA believes that an institution that willfully turns a blind eye to activities not covered under this exemption would likely not be meeting its eligibility requirements. NTIA recognizes that security is very important to protect the preserved copies of copyrighted works, and NTIA made it a point at the hearing to ask about and further the discussion on reasonable digital security measures that the institutions can adopt.<sup>631</sup> As with Class 7, which involves discussions over properly securing the collection and availability of a corpus of works for text-and-data mining purposes, NTIA urges the Librarian to reject adding prescriptive security measures in the regulatory text, which would undermine the term “reasonable” in this context. A flexible framework would work best, given the different

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<sup>627</sup> Cf. 2 Nimmer on Copyright § 8.03[E](2)(c) (2021) (“On the other hand, the library need only have ‘notice,’ not actual knowledge of another purpose by the user, in order to vitiate [sections 108(d) and (e)].”) It is unclear how well-supported “notice” would have to be in this context.

<sup>628</sup> See, e.g., 17 U.S.C. § 108(f)(1) (“Nothing in this section [. . .] shall be construed to impose liability for copyright infringement upon a library or archives or its employees for the unsupervised use of reproducing equipment located on its premises: *Provided*, That such equipment displays a notice that the making of a copy be subject to the copyright law.”).

<sup>629</sup> SPN Class 14 Reply Comments, at 2.

<sup>630</sup> This would be in line with the current “warning of copyright” the Register of Copyrights has issued pursuant to 17 U.S.C. §§108(d)(2) and (e)(2), which states that a library or an archive “reserves the right to refuse to accept a copying order if, *in its judgment*, fulfillment of the order would involve violation of copyright law.” See 37 C.F.R. §201.14(b) (emphasis added).

<sup>631</sup> See April 19 Hearing Transcript, Remarks of NTIA, Henry Lowood, and Steve Englund, at 670-73.

capabilities of the institutions that would be covered. Moreover, there is no indication in the discussion to renew the software preservation exemption that this requirement – or any other requirements in the exemption – has not worked well or otherwise undermined copyright holders’ interests. Although NTIA does not think that proponents’ recommended language in their post-hearing letter that adds a requirement that distribution is limited to teaching, scholarship, or research is necessary to grant the modified exemption, NTIA would not object to its inclusion if it adds clarity about which activities are or are not covered by the exemption.<sup>632</sup>

The primary purpose of preservation, particularly for public-facing institutions like libraries, archives, and museums, is to increase availability of materials for their communities to meet their demands.<sup>633</sup> Noninfringing uses of the preserved works by patrons is not incidental to preservation; it is envisioned by preservation, and the exemptions help make that vision a reality by further enabling use of the preserved works under the covered activities. Proponents have demonstrated that the physical premises limitation creates adverse effects, and that no reasonable alternative to circumvention exists for this limitation for types of works they want to preserve. NTIA also stresses the *temporary* nature of the exemptions the Librarian grants through this rulemaking process. While NTIA believes that the relationship between modern libraries, archives, and museums, and their respective patrons extends beyond physical premises, a critical consideration in granting these proposals in this particular rulemaking cycle is the impact that the ongoing pandemic has in restricting individuals from sometimes even being able to access the physical premises where a particular collection of lawfully acquired works may be housed—that is, from even being able to utilize and benefit from the existing exemptions.<sup>634</sup> NTIA has recommend to the Copyright Office in past rulemakings to focus the proceedings on copyright concerns.<sup>635</sup> NTIA urges the Librarian to consider the effect that the pandemic has had on users trying to exercise their rights to make noninfringing uses of copyrighted works. Arguments

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<sup>632</sup> SPN Class 14 Post-Hearing Letter, at 1, 3.

<sup>633</sup> See SPN Class 14 Initial Comments, at 6-7 (“Moreover, preservation is a function of demand for materials. Libraries, archives, museums, and cultural heritage institutions exist to serve the needs of the public. Libraries have been described as ‘part and parcel of the communit[ies they] serv[e]’ responsive to those communities’ needs and curating their collections accordingly.” . . . Libraries and archival institutions structure their resource allocation to meet public demands, and receive funding on the basis of successfully meeting that demand, regardless of the source of their financial support. These values are also enshrined in their organizational culture. Two of the foremost professional groups in the archive and library science sectors – the Society of American Archivists and the American Library Association – include patron service in their core value statements. Libraries and archives exist to meet the needs of their users and shape their services accordingly, and those users expect offsite access.”). See also April 19 Hearing Transcript, Remarks of Henry Lowood, at 664-65 (“[I]n terms of our core mission as university-based libraries and archives, we support instruction, and we support research. So, the preservation activity should not really be thought of as separate from provision of access. It’s really the reason that we expend resources in these expensive projects to preserve software, various kinds. We do it in order that classes like Professor Ruberg’s can be conducted and that researchers who come to us for access to historical materials can be served.”).

<sup>634</sup> SPN Class 14 Initial Comments, at 9.

<sup>635</sup> See *id.* at 2 (internal quotation marks and citation omitted).

about insufficient causation related to the pandemic are incorrect. The prohibition on circumvention creates the adverse effects, and the ongoing global pandemic further demonstrates the need to have a broader exemption to address those adverse effects.<sup>636</sup> Based on the record presented, there is a demonstrable impact on users being able to make noninfringing uses of copyrighted works under previously granted exemptions due to the prohibition on circumvention, and the need to expand the exemption has been made even clearer by the pandemic.<sup>637</sup> NTIA believes this is a copyright policy concern that is fortunately within the Librarian’s authority under this rulemaking to address. If the Librarian eliminates the physical premises limitation, parties interested in renewing expanded exemptions would have to demonstrate in a future rulemaking that conditions still support preserving the exemptions.<sup>638</sup>

#### **NTIA Recommendation for Class 14 (Software and Video Game Preservation):**

NTIA recommends modifying the exemption to remove the “on-premises” limitation and to harmonize the language between the current exemptions. Accordingly, NTIA recommends the following exemption language:

For software preservation, modifying only 37 C.F.R. §201.40(b)(13)(i):

(13)(i) Computer programs, except video games, that have been lawfully acquired and that are no longer reasonably available in the commercial marketplace, solely for the purpose of lawful preservation of a computer program, or of digital materials dependent upon a computer program as a condition of access, by an eligible library, archives, or museum, where such activities are carried out without any purpose of direct or indirect commercial advantage.

(ii) . . .

For video game preservation, modifying only 37 C.F.R. §201.40(b)(12)(i)(B), (b)(12)(ii), and (b)(12)(iv)(E):

(12)(i) . . .

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<sup>636</sup> See SPN Class 14 Reply Comments, at 28 (“Because researchers cannot access their institutional libraries and use of the materials onsite, their projects and teaching cannot move forward. Without an off-site exemption, software and software dependent material will be lost, and valuable research will never be carried out.”).

<sup>637</sup> See *id.* at 21-22 (“For the vast majority of students and scholars, a ban on remote access has always been tantamount to a ban on studying these materials. The COVID-19 pandemic merely expanded that ban to include the privileged class of scholars for whom travel to a collecting institution would otherwise have been feasible.”).

<sup>638</sup> NTIA does not intend to suggest, however, that the subsiding of the pandemic should automatically obviate the need for remote access. If the Librarian grants this proposal and a party seeks renewal in a future rulemaking, the Librarian will have to make determination based on the future record then, when conditions may be more different than how they are now. See *id.* at 13 (“This shift [to remote work] is likely to persist even after the pandemic concludes, now that industries have experimented with large remote work.”); *id.* at 18 (“The pandemic’s devastating financial impact on higher education is likely to reverberate for many, many years to come, limiting funding for research travel among many other continuing effects.” (internal footnote omitted)).

(B) Permitting access to the video game to allow copying and modification of the computer program to restore access to the game on a personal computer or video game console when necessary to allow preservation of the game in a playable form by an eligible library, archives, or museum, where such activities are carried out without any purpose of direct or indirect commercial advantage.

(ii) Video games in the form of computer programs embodied in physical or downloaded formats that have been lawfully acquired as complete games, that do not require access to an external computer server for gameplay, and that are no longer reasonably available in the commercial marketplace, solely for the purpose of preservation of the game in a playable form by an eligible library, archives, or museum, where such activities are carried out without any purpose of direct or indirect commercial advantage.

(iii) . . .

(iv) . . .

(E) For the purposes of the exemption in paragraph (b)(12)(i) and (b)(12)(ii) of this section, a library, archives, or museum is considered “eligible” if—

(1) The collections of the library, archives, or museum are open to the public and/or are routinely made available to researchers who are not affiliated with the library, archives, or museum;

(2) The library, archives, or museum has a public service mission;

(3) The library, archives, or museum's trained staff or volunteers provide professional services normally associated with libraries, archives, or museums;

(4) The collections of the library, archives, or museum are composed of lawfully acquired and/or licensed materials; and

(5) The library, archives, or museum implements reasonable digital security measures as appropriate for the activities permitted by this paragraph (b)(12).

### **Class 15 – Computer Programs – 3D Printing**

Michael Weinberg submitted a petition to renew the current 3D printing exemption, which allows for the circumvention of micro-chip reliant technological measures that limit the use of feedstock for the sole purpose of using alternative feedstock.<sup>639</sup> Because petitioner demonstrated the continuing need for these exemptions, and because they were unopposed,

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<sup>639</sup> 37 C.F.R. §201.40(b)(14); Class 15 Petition to Renew a Current Exemption of Michael Weinberg (Weinberg Class 15 Renewal Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/renewal/Renewal%20Pet.%20-%203D%20Printers%20-%20Michael%20Weinberg.pdf>.

NTIA recommends adoption of an exemption that at minimum includes the previously exempted class of work and use cases.<sup>640</sup>

Proponent filed a petition to modify the current exemption in two ways. First, proponent requests that the Librarian clarify the existing exemption’s regulatory language by replacing the term “feedstock” with “material,” as proponent claims these terms are “functionally interchangeable,” but the term “material” would “more closely align the language used in the exemption with language used in the 3D printing industry and community.”<sup>641</sup> Second, the proponent requests the ability to circumvent any TPMs that otherwise fall under this exemption, not just “microchip-reliant” TPMs.<sup>642</sup> Proponent notes that the inclusion of the term “microchip-reliant” adds “ambiguity that could harm the rights of users” and “provides little benefit or clarity” to the exemption.<sup>643</sup> The Free Software Foundation and Consumer Reports filed comments in support of the proponent’s petition.<sup>644</sup> The petition is unopposed on the record.

**NTIA Position:** NTIA recommends the proposed modifications.

**Analysis:** NTIA’s long-standing position is that exemptions granted in this rulemaking should be intelligible to the average user in a class. A way to further this goal is to employ commonplace terminology in the exemption regulatory language. The proponent notes that this change to replace “feedstock” with the term “material” is needed to help avoid “unintended disputes or confusion regarding the applicability of the exemption to a given 3D printing material.”<sup>645</sup> Here, the proponent has provided examples demonstrating that some major 3D printer manufacturers use the term “material” more commonly than “feedstock.”<sup>646</sup> NTIA only takes this change to mean what proponent asserts and that this replacement does not “materially alter[] the scope of the class . . . .”<sup>647</sup>

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<sup>640</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65301.

<sup>641</sup> Class 15 Initial Comments of Michael Weinberg (Weinberg Class 15 Initial Comments), Docket No. 2020-11, at 1-2, [https://www.copyright.gov/1201/2021/comments/Class%2015\\_Initial%20Comments\\_Michael%20Weinberg.pdf](https://www.copyright.gov/1201/2021/comments/Class%2015_Initial%20Comments_Michael%20Weinberg.pdf).

<sup>642</sup> *Id.* at 1-2.

<sup>643</sup> *Id.* at 5.

<sup>644</sup> Class 15 Initial Comments of Free Software Foundation (FSF Class 15 Initial Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class\\_15\\_InitialComments\\_Free\\_Software\\_Foundation.pdf](https://www.copyright.gov/1201/2021/comments/Class_15_InitialComments_Free_Software_Foundation.pdf); Class 15 Reply Comments of Consumer Reports (Consumer Reports Class 15 Reply Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/reply/Class\\_15\\_Reply\\_Consumer\\_Reports.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class_15_Reply_Consumer_Reports.pdf).

<sup>645</sup> Weinberg Class 15 Initial Comments, at 4.

<sup>646</sup> *Id.* at 3.

<sup>647</sup> *Id.* at 1. NTIA also notes that in past rulemakings the term “material” appears to have been used interchangeably with “feedstock” by certain proponents and opponents of then-contemplated 3D printing exemptions, a detail that NTIA has acknowledged. *See, e.g.*, 2018 NTIA Letter, at 89, n. 440. (“For example, ‘if you’re trying to use a different sort of material [than the standard feedstock supplied by the manufacturer], you might want to change some of the variables in the program itself.’”) (brackets in original) (citing 1201 Rulemaking Process Public Roundtable, U.S. Copyright Office, at 132, (May 2015) <https://cdn.loc.gov/copyright/1201/2015/hearing-transcripts/1201-Rulemaking-Public-Roundtable-05-28->

NTIA also supports proponent’s proposal to remove the “microchip-reliant” requirement from the types of TPMs that may be circumvented for purposes of the current exemption. For this request, the Register solicited “descriptions and examples of the prevalence of TPMs that are not microchip-based verifications, and descriptions of adverse effects stemming from such TPMs.”<sup>648</sup> NTIA acknowledges that the proponent had the opportunity and could have introduced a more detailed record in support of this change, though NTIA notes that this proposal is also unopposed, which may have affected the development of the record.<sup>649</sup>

NTIA supports an exemption that does not distinguish between the technical specifications of TPMs.<sup>650</sup> In general, as noted in the introduction to this Letter, NTIA cautions against being overly specific in describing the types of TPMs at issue. Proponents can identify the existence of a TPM that effectively controls access to copyrighted works as a necessary requirement for the Librarian to grant any exemption, but we recommend that the Librarian be sufficiently flexible in this regard so as not to frustrate the ultimate purpose of an exemption—to address the adverse effects that the prohibition on circumvention has or is likely to have on a person’s ability to engage in noninfringing uses of copyrighted works.<sup>651</sup> The Librarian’s approach in the context of other exemptions has had such flexibility when appropriate. For example, with the exception of the 3D printing exemption, none of the current exemptions covering literary works (whether specific to computer programs or otherwise) contain a limitation based on the technical specification of a TPM that can be circumvented.<sup>652</sup> These exemptions, even if they are renewed without further modifications, would presumably cover TPMs not in existence at this moment but that in the next three years may be created and employed to effectively control access to those copyrighted works (*i.e.*, types of TPMs with

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[2015.pdf](#)); *see also*, 2015 Proposed Class 26: Software or Firmware in 3D Printers to Allow Use of Non-Manufacture Approved Feedstock, Comments of Stratasy, LTD. (Stratasy Class 26 Comments) Docket No: RM 2014-07, [https://cdn.loc.gov/copyright/1201/2015/comments-032715/class%2026/STRATASYS\\_Class26\\_1201\\_2014.pdf](https://cdn.loc.gov/copyright/1201/2015/comments-032715/class%2026/STRATASYS_Class26_1201_2014.pdf). (“These open alternatives to 3D printers that use TPMs to restrict materials are sufficient to accommodate Petitioners’ purported noninfringing uses of using third-party feedstock and the development and testing of innovative materials.”). Proponent has also used the term “material” previously. *See* Copyright Office Section 1201 Roundtable, Remarks of Michael Weinberg, at 15-16 (Apr. 2018), <https://www.copyright.gov/1201/2018/hearing-transcripts/1201-Rulemaking-Public-Roundtable-04-13-2018.pdf>. (“And while I think it is true that it is possible that if you were to use unapproved third-party materials in a 3D printer, it could create problems.”).

<sup>648</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65308. (internal footnote omitted).

<sup>649</sup> This does not mean, however, that NTIA suggests that the Librarian grant or deny an exemption simply due to a lack of opposition on the record.

<sup>650</sup> NTIA took this position in the 2015 rulemaking discussion for the then-proposed 3D printing exemption. 2018 NTIA Letter, at 91.

<sup>651</sup> *See* 17 U.S.C. §1201(a)(1)(C). Adopting this approach is especially relevant where, as in here, an exemption has already been granted previously and is being recommended for renewal, as the non-infringing use has already been identified. The statute referring to a “particular class of works” is no barrier to this rationale, as the TPM’s role is always the same in the context of this proceeding.

<sup>652</sup> 37 C.F.R. §201.40(b)(3)-(13).

technical specifications not directly discussed on the record).<sup>653</sup> NTIA believes this is appropriate and sees no reason to treat the current exemption differently.

NTIA believes that the Librarian does have the authority and discretion to abstain from distinguishing between technical specifications of TPMs when designating a class of works in this rulemaking proceeding. The language in Section 1201 focuses primarily on the function of the TPM to determine whether the TPM is covered under the statute;<sup>654</sup> refraining from tailoring a class of works by the technical specifications of a TPM would not disturb this dynamic.<sup>655</sup> Two statutory factors in the rulemaking may be relevant to the Librarian’s consideration:

(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.<sup>656</sup>

The Register already indicated in the 2015 Recommendation that the third factor does not appear to be germane to this class.<sup>657</sup> Regardless, NTIA suggests that it is plausible to read the statutory language here to be referring to the general TPM environment affecting the class of work for which an exemption is being sought. In other words, proponents do have to demonstrate that a TPM exists that is curtailing noninfringing uses to merit an exemption, but once that has been shown, the resulting exemption need not be cabined to TPMs with specific technical limitations. The legislative history and additional materials cited in the October 2020 NPRM do not alter this result.<sup>658</sup> Moreover, because the exemption is subject to other

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<sup>653</sup> NTIA also notes that if the Librarian were to eliminate the “microchip-reliant” language from the exemption, the modified exemption would still not apply to all TPMs in the 3D printing context – it would only apply to “technological measures to limit the use of feedstock,” among additional limitations present in the current regulatory language.

<sup>654</sup> See 17 USC 1201(a)(1)(A) (“No person shall circumvent a technological measure *that effectively controls access to a work protected under this title.*”) (emphasis added); 17 USC 1201(a)(3)(B) (“a technological measure ‘effectively controls access to a work’ if the measure, in its ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.”).

<sup>655</sup> For example, removing “microchip-reliant” the 3D printing exemption does not alter whether the TPM at issue must still meet all the definitional components in Section 1201.

<sup>656</sup> 17 USC 1201 (a)(1)(c)(iii)-(iv).

<sup>657</sup> 2018 Register’s Recommendation, at 373.

<sup>658</sup> In the October 2020 NPRM, the Register notes that “[t]o define an appropriate class of copyrighted works, the Office begins with the broad categories of works identified in 17 U.S.C. 102 and then refines them by other criteria, such as the technological protection measures (‘TPMs’) used, distribution platforms, and/or types of uses or users.” 2020 NPRM, 85 Fed. Reg. 65293, 65294. The section of the Commerce Committee Report cited by the Register states:

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 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,

limitations, eliminating the “micro-chip reliant” text would not inappropriately expand the class of work covered. Instead, adopting the proposal would help reduce uncertainty and risk in this area for users in this class.

NTIA has highlighted why the Librarian’s decision complements the approach in most other classes. Beyond that, avoiding technical specificity in the regulatory language with respect to TPMs is even more appropriate when it is not always clear whether a TPM even exists or that the TPMs at issue are effective access controls. In the 3D printing context, NTIA has previously noted that “[t]he access controls proponents seek to circumvent vary based on the specific device at issue. In some cases, it is unclear whether one needs to circumvent a TPM that controls access to a copyrighted work, while in other cases it appears likely that a copyrighted work is at issue.”<sup>659</sup> The Copyright Office has also recognized this.<sup>660</sup> An exemption that is neutral as to the technical specifications of the TPM can provide clarity to users that their noninfringing activities are covered, particularly since the statutory definition of a TPM is itself generally broad.<sup>661</sup> Further, NTIA believes that the Librarian should strive to ensure that exemptions granted under this rulemaking remain usable for the next three years, and are not foiled by the

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the Secretary shall assess users’ ability to make lawful uses of works ‘within each particular class of copyrighted works specific in the rulemaking.’ The Committee intends that the ‘particular class of copyrighted works’ be a narrow and focused subset of the broad categories of authorship that is identified in Section 102 of the Copyright Act (17 U.S.C. Section 102).

H.R. Rep. No. 105–551, pt. 2, at 38 (1998) (Commerce Comm. Report).

Nothing in this language seems to suggest that Section 1201 requires the Librarian to outline the technical specifications of the TPM in the regulation itself. In the case of the 3D printing exemption, for example, proponents in 2015, 2018, and, NTIA believes, in 2021 have demonstrated that “the implementation of technological protection measures has been shown to have an adverse impact.” Commerce Comm. Report at 38. The adverse impact is the ability to use alternate material (feedstock), which is likely a non-infringing use subject to other limitations in the exemption. Whether the TPMs are microchip-reliant is not necessary for that showing—what matters is the existence of TPMs in this context in the first place.

<sup>659</sup> 2015 NTIA Letter, at 89 (internal footnotes omitted).

<sup>660</sup> “In some cases, forcing a 3D printer to accept third-party feedstock may not run afoul of section 1201(a)(1)” but “it appears there are other cases where a consumer wishing to use third-party feedstock in a 3D printer would need to engage in circumvention of a TPM protecting a copyrightable work, for example, when more complex code must be modified so the printer can handle alternative feedstock.” 2015 Register’s Recommendation, at 367.

<sup>661</sup> Transcript, Hearing on Exemptions to the Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, Section 1201 – Digital Millennium Copyright Act, Remarks of Aaron Williamson, at 900 (Apr. 21, 2021) (April 21 Hearing), <https://www.copyright.gov/1201/2021/hearing-transcripts/210421-Section-1201-Rulemaking-Class-11-10-Audience-Participation.pdf> (“I advise clients on the scope of Section 1201 regularly, and the language is very broad . . . and so it’s difficult to say with certainty which of those TPMs [referenced as relevant to the sought exemption to jailbreak networking devices in Class 11] would be considered to effectively control access to a copyrighted work or protect the right of a copyright owner. So, certainly, they’re all measures that I think could be interpreted that way.”).

development of new TPM technologies that pose the same adverse effects the exemptions are intended to mitigate.<sup>662</sup>

**NTIA Recommendation for Class 15 (3D Printing):** NTIA recommends modifying the exemption based on proponent’s proposals. Accordingly, NTIA recommends the following exemption language:

Computer programs that operate 3D printers that employ technological measures to limit the use of material, when circumvention is accomplished solely for the purpose of using alternative material and not for the purpose of accessing design software, design files, or proprietary data.

### **Class 16 – Computer Programs – Copyright License Investigation**

The SFC originally sought a new exemption to allow for the circumvention of TPMs on computer programs for the purpose of:

- (a) Investigating potential copyright infringement of the computer programs; and
- (b) Making lawful use of computer programs (*e.g.*, copying, modifying, redistributing, and updating free and open-source software (FOSS)).<sup>663</sup>

To address points made in the opposition comments and an invitation from the Copyright Office to narrow or clarify the request, proponents substantially amended their petition in their reply comments to the following:

Computer programs, where the circumvention is undertaken on a lawfully acquired device or machine on which the computer program operates, the circumvention solely for the purpose of investigating a potential infringement of free and open-source computer programs and where the circumvention is performed by, or at the direction of a party that has standing to bring a breach of license claim and where such circumvention does not constitute a violation of applicable law.<sup>664</sup>

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<sup>662</sup> See Weinberg Class 15 Initial Comments, at 5 (“The existing exemption acknowledges that TPMs should not be used to limit a user’s ability to use third-party materials in 3D printers. This harm is not directly related to the technical implementation of the TPM. To the extent that circumventing the TPM would trigger § 1201 liability, it properly fits within the scope of the exemption. To the extent that the 3D printer manufacturer created a TPM that operates outside of the scope of § 1201, the section would not apply. Given this existing statutory limitation on the scope of the exemption, there is no benefit from the additional qualifying language linking the TPM to “microchip-reliant” implementations.”).

<sup>663</sup> See Class 16 Petition for New Exemption of SFC (SFC Class 16 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Software%20Freedom%20Conservancy%20-%201.pdf>.

<sup>664</sup> Class 16 Reply Comments of SFC (SFC Class 16 Reply Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/reply/Class%2016\\_Reply\\_Software%20Freedom%20C](https://www.copyright.gov/1201/2021/comments/reply/Class%2016_Reply_Software%20Freedom%20C)

The purpose of this new exemption would be to allow circumvention for copyright owners to gather enough evidence of FOSS license infringement. According to the proponents, evidence is sometimes not obtainable until a TPM is circumvented to confirm whether the software is installed and not used in compliance with the FOSS license.

**NTIA Position:** NTIA recommends granting the proposed exemption, as modified.

**Analysis:** NTIA believes proponents have adequately fine-tuned their proposal to address opposing party concerns and the Copyright Office’s request for specificity. Proponents demonstrated their willingness to (1) restrict the exemption to the investigation of potential FOSS infringement, (2) require circumventors to have standing to enforce the license terms, and (3) limit the circumvention to the subjectivity of other applicable laws.<sup>665</sup> The modifications answer most of the concerns raised by the opposition, with some of the parties even noting that such efforts were “a step in the right direction” and “helpful.”<sup>666</sup> Nevertheless, despite eliminating most of the ambiguity in the previous version of the proposal, opposing parties expressed remaining concerns at the hearing. NTIA believes these remaining concerns lack overall validity and substantiation.

Both DVD CCA & ACCS LA and Joint Creators question the need for the petitioner’s exemption, given the availability of alternatives to circumvention. Instead of circumventing TPMs to gather evidence of potential infringement, opposing parties suggest communicating with software users about their suspicions in a pre-lawsuit letter, filing a complaint, asking for a restraining order, engaging in discovery, or seeking other legal avenues.<sup>667</sup> Proponents refute these suggestions as viable alternatives. SFC points to instances in which they tried to communicate their suspicions with hardware/software manufacturers, only to be faced with

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[onservancy.pdf](#); see also 2020 NPRM, 85 Fed. Reg. 65293, 65308; Class 16 Opposition Comments of DVD CCA & AACCS LA (DVD CCA Class 16 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_16\\_Opp'n\\_DVD%20CCA%20and%20AACCS%20LA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_16_Opp'n_DVD%20CCA%20and%20AACCS%20LA.pdf); Class 16 Opposition Comments of Joint Industry (Joint Industry Class 16 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_16\\_Opp'n\\_Equipment%20Dealers%20Association%20and%20Associated%20Equipment%20Distributors.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_16_Opp'n_Equipment%20Dealers%20Association%20and%20Associated%20Equipment%20Distributors.pdf); Class 16 Opposition Comments of MPA, ARM, and ESA (Joint Creators Class 16 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2016%20Comments%20Computer%20Programs%20Copyright%20License%20Investigation%2002%2009\(13128623.1\).pdf](https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2016%20Comments%20Computer%20Programs%20Copyright%20License%20Investigation%2002%2009(13128623.1).pdf).

<sup>665</sup> SFC Class 16 Reply Comments.

<sup>666</sup> Transcript, Hearing on Exemption to the Prohibition on Circumvention of Copyright Protection systems for Access Control Technologies, Section 1201 – Digital Millennium Copyright Act, Remarks of J. Matthew Williams, at 267 (Apr. 7, 2021) (April 7 Hearing Transcript), <https://www.copyright.gov/1201/2021/hearing-transcripts/210407-Section-1201-Public-Hearing-Class-15-7a-7b.pdf>.

<sup>667</sup> *Id.*, at 269-270; DVD CCA Class 16 Opposition Comments, at 10-11; Joint Creators Class 16 Opposition Comments, at 2-4.

silence.<sup>668</sup> In terms of legal alternatives, proponents correctly note that a cease and desist letter requires a level of evidence that only the outcome of a petitioned investigation would provide.<sup>669</sup> Moreover, “[i]t would be an undue burden on the courts to file complaints for every suspected infringement simply to make the tool of discovery available.”<sup>670</sup> NTIA concurs with the argument that these alternatives are not available until there is some evidence upon which to base a complaint. The approaches suggested by opposing parties are only feasible after there is sufficient evidence of infringement, which the circumvention would provide.

Conversations surrounding this exemption have also revolved around the need for a triggering event—some suspicion of infringement before proceeding with circumvention.<sup>671</sup> Both Joint Creators and DVD CCA advocate for a particularized reason for circumvention, otherwise the proposal would be overbroad and an overly open-ended standard.<sup>672</sup> Proponents, however, adequately counter with the fact that particularized knowledge is frequently unobtainable until circumvention is realized. Proponents undertake investigations when they receive a complaint that there is a suspected infringement of the FOSS license in a lawfully acquired device or machine’s software.<sup>673</sup> Often, the disclosure requirements are not complete, or in another case, where Linux is installed but source code is not disclosed, such instances would raise suspicion of infringement.<sup>674</sup> The total cases handled by the proponents is in the range of about 200 to 280 cases per year after examining a device for those signs of possible infringement.<sup>675</sup> Once the investigator determines there are enough possible signs of infringement, they then proceed to circumvention to confirm these suspicions.<sup>676</sup> Only after TPMs on a particular device are circumvented can an investigator gather enough evidence to approach an infringing manufacturer. Thus, the very purpose of the exemption is to gather particularized knowledge.<sup>677</sup> Relatedly, at the hearing the opposition discussed the need for a “good faith reasonable belief” requirement to the proposed exemption to ensure that organizations only proceed with

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<sup>668</sup> SFC Class 16 Reply Comments, at 7 (noting that “the common responses are stonewalling, delay and silence” and “[o]btaining a copy of the source code is measured, not in months, but years, and rarely does the infringer ever achieve full compliance.”); *see also* April 7 Hearing Transcript, Remarks of Pamela Chestek, at 276.

<sup>669</sup> SFC Class 16 Reply Comments, at 7.

<sup>670</sup> *Id.*, at 8. Proponents have also added that a lawsuit should only be engaged as a last resort and point to instances in the past where SFC has attempted to enforce FOSS license requirements amicably. Class 16 Initial Comments of Software Freedom Conservancy, Inc. (SFC Class 16 Initial Comments), Docket No. 2020-11,

[https://www.copyright.gov/1201/2021/comments/Class%2016\\_InitialComments\\_Software%20Freedom%20Conservancy.pdf](https://www.copyright.gov/1201/2021/comments/Class%2016_InitialComments_Software%20Freedom%20Conservancy.pdf); *see also* April 7 Hearing Transcript, Remarks of Pamela Chestek, at 277, 306-07.

<sup>671</sup> April 7 Hearing Transcript, Remarks of J. Matthew Williams, at 268, Michael Ayers, at 270, and Pamela Chestek, at 281, 297.

<sup>672</sup> Joint Creators Class 16 Opposition Comments, at 3; April 7 Hearing Transcript, Remarks of J. Matthew Williams, at 268-69, 284, Regan Smith, at 271, and Michael Ayers, at 289.

<sup>673</sup> April 7 Hearing Transcript, Remarks of Pamela Chestek, at 279-280.

<sup>674</sup> *Id.* at 280.

<sup>675</sup> *Id.* at 279.

<sup>676</sup> SFC Class 16 Reply Comments, at 4.

<sup>677</sup> *See* April 7 Hearing Transcript, Remarks of Pamela Chestek, at 298.

circumvention with the necessary level of suspicion of infringement.<sup>678</sup> NTIA believes the additional language is unnecessary since a good faith reasonable belief is already the proponent's existing best practice.<sup>679</sup>

Opponents have further raised concerns with knock-on effects that would facilitate infringement post-circumvention; such parties suggested requiring circumventers to restore, delete, or destroy devices and software once the investigation has concluded.<sup>680</sup> Much like the repair exemption, destruction or repair would avoid unintended consequences that would make devices vulnerable to acts of piracy and hacking.<sup>681</sup> Proponents satisfactorily assert that the proposed exemption is not a repair exemption and thus, there is no need to return the device to an operable condition.<sup>682</sup> Moreover, the proposed language does not endorse or permit further use of the device in a way that would infringe on copyright.<sup>683</sup> SFC readily offers throughout the record that further distribution or use of a circumvented device, beyond the goals of the investigation, would allow device manufacturers to bring suit for unlawful exposure or infringement.<sup>684</sup> NTIA believes proponents have made the necessary showing to discourage the inclusion of a repair/destruction requirement in the proposed exemption.

**NTIA Recommendation for Class 16 (Computer License Investigation):** NTIA recommends the following exemption language:

Computer programs, where the circumvention is undertaken on a lawfully acquired device or machine on which the computer program operates, the circumvention solely for the purpose of investigating a potential infringement of free and open-source computer programs and where the circumvention is performed by, or at the direction of a party that has standing to bring a breach of license claim. ~~and where such circumvention does not constitute a violation of applicable law.~~ This exemption does not obviate the need to comply with all other applicable laws and regulations.<sup>685</sup>

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<sup>678</sup> April 7 Hearing Transcript, Remarks of J. Matthew Williams, at 284.

<sup>679</sup> See April 7 Hearing Transcript, Remarks of Pamela Chestek at 299. Proponents at the hearing noted that SFC's present standard is "reasonable good-faith belief" as "they don't investigate frivolous complaints." *Id.*

<sup>680</sup> April 7 Hearing Transcript, Remarks of J. Matthew Williams, at 268, 286-287.

<sup>681</sup> DVD CCA Class 16 Opposition Comments, at 13-19; April 7 Hearing Transcript, Remarks of J. Mathew Williams and Michael Ayers, at 287-91.

<sup>682</sup> April 7 Hearing Transcript, Remarks of Pamela Chestek, at 272-273. Proponents have illustrated that oftentimes a device needs to be destroyed in order to conduct an investigation for infringement and, therefore, repair is not often possible; SFC Class 16 Comments, at 7.

<sup>683</sup> April 7 Hearing Transcript, Remarks of Pamela Chestek, at 275; SFC Class 16 Reply Comments, at 6.

<sup>684</sup> April 7 Hearing Transcript, Remarks of Pamela Chestek at 275; SFC Class 16 Reply Comments, at 6.

<sup>685</sup> While not discussed in this context on the record, NTIA believes that the discussion above of other laws provisions is applicable here. See *supra* Class 13, at pgs. 93-97, 108-110. The proponents included this last phrase into their last revised proposed language. Yet NTIA asserts, as we have above, that it would be best to drop this phrase from the exemption and use language discussed above, which we have added in underline text.

## Class 17 – All Works – Accessibility Uses

Fifteen (15) organizations representing persons with disabilities (Accessibility Petitioners) jointly filed a petition proposing “a more comprehensive exemption to resolve the shortcomings of the current, piecemeal approach to Section 1201 exemptions for accessibility.”<sup>686</sup> Unlike most proposed exemptions, this proposal would permit circumvention to access “any work protected by a technological protection measure (TPM) where circumvention is undertaken for the purpose of creating an accessible version of the work for people with disabilities.”<sup>687</sup> The Librarian has historically declined to approve requests for proposed exemptions that cover all copyrighted works.<sup>688</sup>

Multiple organizations also oppose this proposed exemption as too broad, not narrowly tailored, and beyond the ability of the Librarian to adopt under the 1201 statute.<sup>689</sup> After the hearings, on May 6, 2021, the Copyright Office solicited further evidence from the parties regarding proposed exemptions, potentially setting up the possibility that multiple particular classes of works could be considered in place of a single comprehensive exemption, an outcome that proponents strongly urge against.<sup>690</sup>

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<sup>686</sup> Class 17 Petition for New Exemption of American Council of the Blind *et al.* (Accessibility Petitioners Class 17 Petition), Docket No. 2020-11, <https://www.copyright.gov/1201/2021/petitions/proposed/New%20Pet.%20-%20Accessibility%20Petitioners.pdf>.

<sup>687</sup> See Class 17 Initial Comment of American Council of the Blind (Accessibility Petitioners Class 17 Initial Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/Class%2017\\_InitialComments\\_Accessibility%20Petitioners%20III.pdf](https://www.copyright.gov/1201/2021/comments/Class%2017_InitialComments_Accessibility%20Petitioners%20III.pdf).

<sup>688</sup> For example, in the very first Triennial Rulemaking, NTIA urged adoption of an exemption for “works embodied in copies that have been lawfully acquired by users or their institutions who subsequently seek to make noninfringing uses thereof.” The Register declined to recommend this exemption, arguing in part that doing so would “necessarily require adoption of... an interpretation of the statutory phrase ‘particular class of copyrighted works’ that the Register cannot support.” 65 Fed. Reg. 64561–64562 (October 27, 2000).

<sup>689</sup> Class 17 Opposition Comments of AAP (AAP Class 17 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_17\\_Opp'n\\_Association%20of%20American%20Publishers.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_17_Opp'n_Association%20of%20American%20Publishers.pdf); Class 17 Opposition Comments of DVD Copy Control Association and Advanced Access Content System Licensing Administrator, LLC (DVD CCA Class 17 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/Class\\_17\\_Opp'n\\_DVD%20CCA%20and%20AACCS%20LA.pdf](https://www.copyright.gov/1201/2021/comments/opposition/Class_17_Opp'n_DVD%20CCA%20and%20AACCS%20LA.pdf); Class 17 Opposition Comments of MPA (MPA Class 17 Opposition Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2017%20Comments%20All%20Works%20for%20Accessibility%2002%2009\(13128594.1\).pdf](https://www.copyright.gov/1201/2021/comments/opposition/corrections/2021-04-29%20CORRECTED%20FINAL%20JCCO%20Class%2017%20Comments%20All%20Works%20for%20Accessibility%2002%2009(13128594.1).pdf).

<sup>690</sup> Letter from Regan A. Smith Regarding USCO Post-Hearing Question to Class 17 (May 6, 2021), <https://www.copyright.gov/1201/2021/post-hearing/letters/Class-17-Post-Hearing-Letter-05-06-2021.pdf>.

**NTIA Position:** NTIA recommends granting the requested exemption covering any work protected by a TPM for the accessibility purposes detailed by proponents.<sup>691</sup> Since the first rulemaking in the year 2000, NTIA has endorsed an understanding that “class of works” (or “particular class of works”) should not frustrate the ultimate purpose of an exemption, which is to address the adverse effects that the prohibition on circumvention has or is likely to have on an individual’s ability to make noninfringing uses of copyrighted works.<sup>692</sup> NTIA continues to support that view in this rulemaking.

**Analysis:** The petitioners have demonstrated that this exemption is statutorily permissible. The Accessibility Petitioners assert that this proposed exemption “meets and surpasses the statutory burden of demonstrating that the exemption is warranted and necessary.”<sup>693</sup> NTIA notes that the opponents’ specific critique is that this proposed exemption is too broad, and as proposed, with examples from different types of works, would require the Librarian of Congress to instead exempt a multitude of classes.<sup>694</sup> NTIA rejects this reasoning, and notes that such a solution, one which could only be addressed in the next triennial rulemaking, is the very issue that Accessibility Petitioners’ proposed exemption seeks to circumvent.

The Copyright Office noted in its NPRM that “this proposed exemption is beyond the Librarian’s authority to adopt because it does not meet the statutory requirement to describe ‘a

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<sup>691</sup> We note that there are two other proposed accessibility related exemptions: Classes 3 and 8. We discuss those in their respective sections.

<sup>692</sup> See, e.g., Letter from Gregory L. Rohde, Assistant Secretary of Commerce for Communications and Information, and Administrator, NTIA, to Marybeth Peters, Register of Copyrights, Library of Congress, at 4 (Sept. 29, 2000) <https://www.copyright.gov/1201/2000/commerce.pdf>; Letter from Nancy J. Victory, Assistant Secretary of Commerce for Communications and Information, and Administrator, NTIA, to Marybeth Peters, Register of Copyrights, Library of Congress (Aug. 11, 2003), <https://www.ntia.doc.gov/other-publication/2003/ntia-letter-register-copyrights-regarding-dmca>. NTIA has welcomed the shifts made in prior rulemakings to interpret “particular class of works” more inclusively. See, e.g., Letter from Lawrence E. Strickling, Assistant Secretary of Commerce for Communications and Information, and Administrator, NTIA, to Marybeth Peters, Register of Copyrights, Library of Congress, at 2 (Nov. 4, 2009) <https://www.copyright.gov/1201/2010/NTIA.pdf>.

<sup>693</sup> Class 17 Reply Comments of American Council of the Blind (Accessibility Petitioners Class 17 Reply Comments), Docket No. 2020-11, [https://www.copyright.gov/1201/2021/comments/reply/Class%2017\\_Reply\\_Accessibility%20Petitioners%20IV.pdf](https://www.copyright.gov/1201/2021/comments/reply/Class%2017_Reply_Accessibility%20Petitioners%20IV.pdf).

<sup>694</sup> AAP Class 17 Opposition Comments, at 1 (“The Copyright Office has already indicated that it is beyond the Librarian’s authority to adopt the exemption as proposed.”); DVD CCA Class 17 Opposition Comments, at 3 (“The proposed class for all copyrighted works, as the NPRM noted, far exceeds the parameters of a permissible class.”); MPA Class 17 Opposition Comments, at 3 (“If this proceeding is to respect the Copyright Office’s longstanding regulatory guideposts, ‘all works’ exemptions must not be eligible for adoption.”).

*particular class* of copyrighted works.”<sup>695</sup> Opponents echo this point. The Association of American Publishers succinctly asserts and summarizes the opposition to this exemption:

Section 1201 authorizes the Librarian of Congress, upon recommendation of the Register of Copyrights, to grant exemptions to the prohibition on circumvention for “particular class[es] of copyrighted works.”<sup>696</sup> As Congress has explained, “the particular class of copyrighted works” designated for an exemption under section 1201 must be “a narrow and focused subset’ of the broad categories of works.”<sup>697</sup>

Opponents rely on a constricting interpretation of the statute to dismiss petitioner’s exemption, despite not only urgent public policy concerns that would not be served by the next triennial rulemaking, but also a logical outgrowth of the legislation at hand.<sup>698</sup> NTIA points to petitioners’ supporting precedent of the continued broadening over time of Section 121 and 121A of the Copyright Act, and the Chafee Amendment.<sup>699</sup> Further, NTIA notes changes in this proceeding over time, including the creation of the “video game” class as “not one independent class—a literary work or an audio work—but a created class formed from various parts of at least two classes.”<sup>700</sup> This regulatory precedent supports the contention that classes are flexibly construed through whichever lens is most efficient.<sup>701</sup> As such, the Librarian has sufficient statutory authority to grant this broadened exemption, and should do so this rulemaking due to unprecedented public policy concerns.<sup>702</sup>

More importantly, public policy concerns should push the Librarian to grant this exemption. Accessibility Petitioners exemplify the need for this exemption most through the current pandemic, noting how the “COVID-19 crisis has disparately adversely affected people with disabilities’ access to copyrighted works.”<sup>703</sup> Petitioners specifically note:

The proposed exemption would account for new barriers to accessibility that materialize during the interim period of each triennial review by making clear that the widespread need for accessibility—particularly during a pandemic that has shifted much of America’s educational, economic, and cultural activity to virtual spaces—can be met

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<sup>695</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65309; 17 USC § 1201(a)(C) (“... shall make the determination in a rulemaking proceeding for purposes of subparagraph (B) of whether 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 subparagraph (A) in their ability to make noninfringing uses under this title of a particular class of copyrighted works.”).

<sup>696</sup> 17 U.S.C. § 1201(a)(1)(C).

<sup>697</sup> AAP Class 17 Opposition Comments, at 1.

<sup>698</sup> Accessibility Petitioners Class 17 Reply Comments, at 14 (“Forcing people with disabilities to engage in a lengthy, complex petitioning process every three years is already burdensome.”).

<sup>699</sup> Accessibility Petitioners Class 17 Initial Comments, at 5.

<sup>700</sup> Accessibility Petitioners Class 17 Reply Comments, at 17.

<sup>701</sup> *See id.*

<sup>702</sup> *Id.* at 8.

<sup>703</sup> *Id.*

without waiting for years for the instantiation of the triennial review or the Office's lengthy review.<sup>704</sup>

NTIA finds this need compelling and the legislative precedent supportive, and therefore, urges the Copyright Office to adopt a fresh interpretation of "classes of works" in this case.<sup>705</sup> If any case required this shift – it is here to serve those with disabilities that are not being served currently and are even being adversely impacted by barriers to technology.

In the hearings, the public policy reasons to permit this exemption were expressed often. The following is a profound example.

[T]he proposed language is trying to address . . . the opportunity for people who have disabilities to equitably participate in society, to be able to work, to be able to take care of their children, to shop, to do all the kinds of things that people do. And when we have a system in place that says to people with disabilities, you can't have access to the same thing that everyone else has access to because it stands behind a kind of digital wall . . . that this is systemically excluding people who the government, the clear public policy of the United States, is to try to include.<sup>706</sup>

Further it is important to reiterate a point made in the hearings. While there have been a lot of efforts from the content community to provide accessible features, devices and content, these efforts do not serve all disabilities. The reason for a broad stroke in crafting this exemption is to serve those gaps. Thus the reason the proposed exemption does not define disability or specific works or specific accessibility needs is that those will always leave out some group or some need.

A company that's gone out of its way to make a work accessible for large populations of people who have disabilities, it doesn't mean that they've made the work accessible for all of the people who have disabilities. And it's really the people in smaller populations that you don't see in this discussion, right? The groups that are here represent the most powerful constituencies of people with disabilities in the country, and even they are struggling. But the people whose disabilities exist in smaller numbers, those folks don't have solutions. You make all the accessible game consoles you want to make, and I would encourage that, and you can make, as Mr. Marks said, come to us and we'll make it more accessible for you. . . . But sometimes companies can't make it more accessible or

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<sup>704</sup> Accessibility Petitioners Class 17 Initial Comments, at 5.

<sup>705</sup> *Id.* at 8. *See also* April 5 Hearing Transcript, Remarks of Jack Bernard, at 90 ("The room is in there. 1201 doesn't prescribe a circumstance where you couldn't identify all classes of works that meet a certain set of criteria. And here are the criteria, is that they are wanting to be used by a person who has a disability in order to access that work.").

<sup>706</sup> April 5 Hearing Transcript, Remarks of Jack Bernard, at 71.

won't make it more accessible or think they have made it accessible enough or there just isn't a financial interest in doing so.<sup>707</sup>

There is a long history of the Register and Librarian supporting innovation and study to improve access to works for those with disabilities. Indeed, in 2010, when proponents presented a particularly thin case for renewing the e-book exemption for persons with disabilities, the Librarian found it was enough based largely on public policy.

In the view of the Librarian, the proposed exemption should be granted because: (1) the record includes statements on the likelihood of access not being available to blind individuals, (2) no one opposed the exemption, and (3) there are broad benefits to society in making works accessible to the visually impaired. . . . Accordingly, the Librarian is designating the class of works relating to literary works distributed in ebook format.<sup>708</sup>

The Librarian's strong advocacy here on public policy is critical when considering this exemption. NTIA is cognizant that this will break new ground. But it is the right thing to do as was done in the ebook case in 2010.

While there is opposition in this case, the opponents acknowledge the importance of this issue and that "persons with disabilities sometimes encounter difficulties with access controls . . . ."<sup>709</sup> With that the opponents make valid points to cabin this exemption some. The rulemaking included discussions about whether limitations from other exemptions, such as a market check requirement, could be imported into this proposed class.<sup>710</sup> NTIA agrees that a "lawful access" limitation is appropriate in this circumstance, and NTIA includes it in its recommended regulatory language to help strike the right balance between rights holders and the needs of the disability community.<sup>711</sup>

Technological Protection Measures: A significant portion of the record involves discussions on the role on TPMs in the rulemaking and how TPMs should be addressed within the context of an exemption, particularly an exemption that aims to capture any work cognizable under section 102(a) or a similar scope. As NTIA explains at the beginning of this letter, one of its major policy concerns is the challenge of identifying whether a TPM exists in any given

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<sup>707</sup> See, e.g., April 5 Hearing Transcript, Remarks of Jack Bernard, at 116-117.

<sup>708</sup> Library of Congress, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies* (2010 Final Rule), Docket No. RM 2008-8, Final Rule, 75 Fed. Reg. 43825, 43838 (July 27, 2010). The Librarian's important words including advocacy that this is an appropriate issue for Congress to take up and included the following: "The section 1201 process is a regulatory process that is at best ill-suited to address the larger challenges of access for blind and print-disabled persons. The exemption that the Librarian is approving here offers a solution to specific concerns that were raised in the narrow context of the rulemaking. Moreover, it is a temporary solution, as the 1201 process begins anew every three years." *Id.* at 75 Fed. Reg. 43825, 43839.

<sup>709</sup> See, e.g., MPA Class 17 Opposition Comments, at 2; JCCO Class 17 Post-Hearing Letter, at 1-2.

<sup>710</sup> See, e.g., April 5 Hearing Transcript, Remarks of Dean Marks, at 114-115.

<sup>711</sup> See, e.g., April 5 Hearing Transcript, Remarks of Dean Marks, at 75-76 (saw this as step in right direction to find an equitable balance between rights holders and the disability community).

work, and if there is a TPM, whether such a TPM fits within the meaning Section 1201. Experience suggests that there may not be a sufficient incentive to explore these distinctions in-depth, as no party may want to seemingly risk minimizing or aggrandizing the contour of an exemption that may go against their interests; in any event, the range of technologies and particular applications of technologies may make even the most experienced technologists and legal and policy experts disagree on the same inquiry.

In light of this consideration, the better approach to addressing TPM issues is to focus on the role that TPMs actually play in the context of this proceeding. NTIA explains in more detail in its Class 15 discussion on 3D printing that the Librarian does not need to divide TPMs by technical specifications (*e.g.*, a microchip-reliant TPM). The benefits that engaging in such exercise may provide are overridden by the detriments caused due to the ambiguity and uncertainty that accrue as technologies appear that may be *slightly* different or are applied in a *slightly* different manner—or where there is at least a claim or reasonable belief that there may be such a difference. Unfortunately, no matter whether the distinctions in a TPM or its application are small or large, they all carry the same consequence: potentially steering users away from engaging in non-infringing uses of copyrighted works. This is the same in the context of Class 17 and particularly more forceful for exemptions that seek to incorporate a broader set of copyrighted works, where even more types of TPMs might be applied and applied in different manners.

Instead, NTIA suggests that what is needed is a finding that the prohibition on circumvention has or is likely to have an adverse effect on people’s ability to make non-infringing uses of copyrighted works. Once there is a finding that a TPM does affect such uses (*e.g.*, non-infringing uses for accessibility purposes), the Librarian does not need to delve into a TPM’s technical specifications (as we suggest in Class 15) or whether the TPM is particularly impacting a subsection of works of authorship listed in section 102(a). An argument in favor of the latter would perhaps be more persuasive if section 102(a) was limited to the eight works of authorship listed in the statute or if the Librarian construed a class based exclusively on section 102(a). However, the statute notes that works of authorship “include” those eight categories. Even in the context of this proceeding, the Librarian has previously drawn classes that are not one of the eight statutory works of authorship (*e.g.*, video games). The Librarian can likewise designate more inclusive classes where a TPM has been shown to affect the non-infringing uses, such as the non-infringing uses for accessibility purposes here. That TPMs are diverse, widespread, and may be applied differently in relation to the subsets of the proposed class in Class 17 only serves to strengthen the proponents’ position, as this is further indication that a broader exemption is needed to avoid users in this class from being uncertain about their non-infringing activities. To the extent that in a given situation there might not be a TPM or a TPM that effectively protects access to a copyrighted work, the prohibition on circumvention and the exemption are irrelevant. However, to avoid any doubt, an exemption should be granted, given that there may be instances where it would be relevant to achieve that lawful purpose.

Ultimately, the strongest public policy reason to craft an exemption this way is to minimize the risk a TPM is or will become a barrier to people’s ability to make non-infringing

uses for the next three years. As noted in Class 15, the Librarian has already taken an inclusive approach with regards to the former in exemptions covering a range of other literary works, where there is no technical specification covering the TPM at issue. Here, then, the proponents should be able to achieve at least that same result, and, NTIA recommends, a result that accommodates accessibility in a broad manner.

**NTIA Recommendation for Class 17 – (Accessibility Uses):** NTIA recommends granting this exemption due to “the important public policy considerations raised by this request and past exemptions adopted with respect to facilitating accessibility use” and finds that existing precedent supports the Librarian of Congress’s authority to create a broad exemption in this manner for the public interest.<sup>712</sup> Exemptions that promote accessibility for persons with disabilities are now generally granted without opposition, but it has been a long journey to get to this point for those exemptions. Easing the burden on this particular community and providing the appropriate balance between their needs and those of the rights holders granting this exemption, while temporary for three years, will be a significant step toward providing needed equality and easing that burden.<sup>713</sup>

Accordingly, NTIA recommends the following language:<sup>714</sup>

Any work lawfully accessed by, or on behalf of, a person with disabilities, where the circumvention is undertaken for the purpose of creating an accessible version of the work for that person.

Finally, proponents have requested that the Copyright Office “affirmatively and regularly engage with people with disabilities and copyright holders on the issues at the intersection of copyright and disability through the hosting of at least annual roundtables.”<sup>715</sup> The Copyright Office has a strong tradition in this regard.<sup>716</sup> NTIA stands ready to support the Copyright Office in this continued effort.

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<sup>712</sup> 2020 NPRM, 85 Fed. Reg. 65293, 65309.

<sup>713</sup> See, e.g., April 5 Hearing Transcript, Remarks of Blake Reid, at 76 – 78.

<sup>714</sup> The language here is similar to proponents’ model regulatory text. However, NTIA omits the reference to a technological protection measure, as the existence of a TPM is assumed under any exemption in this process and proponents are seeking circumvention for all TPMs within the proposed class.

<sup>715</sup> Class 17 Post-Hearing Letter of Accessibility Petitioners (Accessibility Petitioners Post-Hearing Letter) (June 4, 2021), Docket No. 2020-11, at 23, <https://www.copyright.gov/1201/2021/post-hearing/letters/Class%2017%20Accessibility%20Petitioners%20Post-Hearing%20Response%20to%20Office%20final.pdf> (internal citation omitted).

<sup>716</sup> See, e.g., 2010 Final Rule, 75 Fed. Reg. 43825, 43839 (here the Librarian recounts the hard work the Copyright Office had engaged in on this issue.)