

**BEFORE THE UNITED STATES SENATE
COMMITTEE ON THE JUDICIARY
SUBCOMMITTEE ON INTELLECTUAL PROPERTY
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Statement of

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“Are Reforms to Section 1201 Needed and Warranted?”

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Chairman Tillis, Ranking Member Coons, and Members of the Subcommittee, thank you for inviting me to testify about the crucial role of the Digital Millennium Copyright Act in the creation, distribution, and use of copyrighted digital content in the United States. My name is Vanessa Bailey and I am the Global Director of Intellectual Property Policy for Intel Corporation. Intel was founded in 1968 and has grown to be a leading U.S. based manufacturer. Intel is not only known for its semiconductor chipsets but is also a leader in high performance computing, artificial intelligence, autonomous driving, and cloud-based technologies, among many other areas. Intel is a U.S. based company that contributes to the digital economy via its hardware and software services and products. It employs more than 110,000 workers worldwide, nearly half of which are in the United States.¹ Last year alone, Intel spent over \$13 billion² on research and development, and was an integral part of a digital industry that added \$1.35 trillion to U.S. GDP in 2017.³

The topic of this testimony—“Are reforms to Section 1201 needed and warranted?”—is particularly relevant today. Millions of Americans currently rely on the protections of Section 1201 to facilitate electronic delivery of copyrighted digital content—including video games, motion pictures, television shows, and classroom materials—for entertainment, enrichment, and education at home. The digital content ecosystem that allows Americans on-demand access to a vast library of creative digital content would not be possible without Section 1201.⁴ Though they were enacted more than twenty years ago, when VHS tapes still lined the shelves at Blockbuster®, the anti-circumvention and anti-trafficking provisions of Section 1201, along with the triennial exemption process, have proven remarkably effective, flexible, and resilient in the face of technological change. These provisions continue to provide content creators with reliable protection for their valuable content and in so doing create confidence that digital content can be broadly distributed without proliferating infringement. At the same time the triennial exemption process has guaranteed that rulemaking under Section 1201 appropriately evaluates the need for real world, practical uses for protected content in various fair use contexts in the digital marketplace. The ultimate balance struck between content protection and fair use reflects the input of all interested parties and the expertise of the Register of Copyrights and the Librarian of Congress.

Intel has had a positive experience with Section 1201 and the DMCA. Intel played a central role in the process that led to the DMCA’s introduction into law and

¹ INTEL CORPORATION, *2019 Annual Report* 21, 55 (Jan. 23, 2019), <https://www.intc.com/financial-info/financial-results>.

² *Id.* at 43.

³ UNITED STATES DEPARTMENT OF COMMERCE, NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, *Digital Economy Accounted for 6.9 Percent of GDP in 2017* (April 5, 2019), <https://www.ntia.doc.gov/blog/2019/digital-economy-accounted-69-percent-gdp-2017>.

⁴ 17 U.S.C. §1201.

has been involved not only in facilitating the availability and distribution of digital content through its information technology products, but also in the protection of digital content since the dawn of the digital era more than 20 years ago. Intel's interest in the DMCA is not primarily as a content producer or content consumer, but as a part of the integrated system that protects digital content and ensures that all Americans can receive a wide range of high-quality content at reasonable prices. Specifically, Intel, through its Oregon-based subsidiary Digital Content Protection LLC ("DCP"), is the creator and licensor of High-bandwidth Digital Content Protection ("HDCP"), the technology that encrypts valuable digital content as it travels over High-Definition Multimedia Interface ("HDMI").⁵ HDCP is ubiquitous in American households and provides critical link protection⁶ for copyrighted audiovisual content. Through careful coordination with device manufacturers and content creators, Intel's HDCP is able to provide protection that is invisible to all but the most technically inclined consumers. As described more fully below, the anti-trafficking and anti-circumvention provisions of Section 1201 provide necessary legal support for HDCP. Without this support, HDCP would be unable to effectively guard against malicious actors and the digital content ecosystem would be significantly undermined.

My remarks today address three main points:

1. Section 1201 helped spur the digital revolution over the past two decades and continues to protect the digital content ecosystem.
2. The flexibility of the triennial rulemaking process meets the needs of the digital content marketplace while properly accommodating fair uses that address education, accessibility and other imperatives, and broad permanent exemptions would undermine this flexibility.
3. Heightened opportunities for copyright infringement would be created by anti-trafficking exemptions and such exemptions are unnecessary in light of existing regulatory alternatives.

To begin with the question posed in the title of this hearing—"Are reforms to Section 1201 needed and warranted?"—it is, and has always been Intel's position that the protections created by Section 1201 are critical to ensuring that all Americans have safe, seamless, and low-cost access to a wide variety of digital content. Intel opposes limitations on Section 1201's inherent adaptability, such as additional permanent anti-circumvention exemptions or anti-trafficking exemptions. In an ever-changing world where the law often struggles to keep up with evolving technologies, the flexibility of Section 1201 is its greatest asset. The current triennial rulemaking

⁵ HDMI and HDCP's place in the integrated digital content protection system will be described more fully below.

⁶ "Link protection" refers to the idea that HDCP protects the "link" between a source device (perhaps an Apple TV) and a display.

process ensures that exemptions to Section 1201 are carefully considered by subject matter experts with input from all interested parties, and creates continuing exemptions in cases of consensus.⁷ With small tweaks to streamline the exemption process, Section 1201 will continue to effectively serve the need of the American public for years to come.

I. SECTION 1201 SPURRED THE DIGITAL REVOLUTION OVER THE PAST TWO DECADES AND CONTINUES TO PLAY A PIVOTAL ROLE IN THE PROTECTION OF THE DIGITAL CONTENT ECOSYSTEM.

Section 1201 contains two provisions that are critical to the health of the digital content ecosystem. The first prohibits the circumvention of technological protection measures—or “TPMs”—that limit unauthorized access to copyrighted digital content.⁸ The second prohibits the manufacturing or trafficking of devices that are primarily designed for the purpose of circumventing the protections of a TPM.⁹ These provisions arose to support and secure the integrated digital content ecosystem and for over 20 years have been effective in doing so. Changes to these core provisions are unwarranted.

A. Section 1201 is the Bedrock on Which the Digital Content Ecosystem Is Built. Copyrighted Digital Content Requires Both Technical and Legal Protection to Prevent Unauthorized Use.¹⁰

Protecting copyrighted audiovisual content has not always required extensive use of technology. Concerns about the unauthorized copying of copyrighted content have always existed; however, before the advent of commercially-available media that could store digital content, those concerns were more limited. While it was technically possible to copy analog content from storage media like VHS tapes, the resultant duplicate was a degraded version of the original. Repetitive copying of analog content inevitably produced lower and lower quality results, particularly when copies were made with consumer-grade technology. Moreover, because the Internet was not yet fully developed, analog copies had to be delivered physically, further limiting the ability of isolated copying to affect the market for copyrighted content.

The advent of the digital era at the end of the 20th century altered this terrain. Digital formats had numerous advantages to consumers over analog, including: better picture and sound quality; the ability to incorporate sophisticated navigation

⁷ See 17 U.S.C §1201(a)(1)(C).

⁸ 17 U.S.C §1201(a)(1)(A).

⁹ 17 U.S.C §1201(a)(2); 17 U.S.C §1201(b).

¹⁰ For a more detailed discussion of the development of the integrated digital content ecosystem, along with supporting affidavits, see the Amicus Brief of Content Protection Organizations at 5-12, *Green v. Dept. of Justice*, 16-cv-01492 (D.D.C. Nov. 5, 2019), ECF No. 47.

tools, menus and interactive features; and smaller physical storage units. However, content stored in an unprotected digital format can be serially copied without degradation.¹¹ This raised serious concerns about the protection of copyrighted audiovisual content. In the spring of 1996, the motion picture industry was considering whether to distribute its valuable content to home consumers in a new digital format—the Digital Versatile Disc (“DVD”). The motion picture industry’s primary concern was that the new format would leave the content unprotected from repetitive and serial, perfect quality unauthorized copying and redistribution.¹² The industry made it clear that it would not distribute its content in the new digital format without adequate protection against infringing duplication and redistribution.

To bridge the gap between consumer desire for higher-quality digital content and the content creators’ desire to maintain the protection of their valuable intellectual property, interested parties formed the Copy Protection Technical Working Group (the “Working Group”).¹³ The Working Group was organized by members of the motion picture, consumer electronics, and IT industries, including Intel. It was in the Working Group where these industries first developed the concept for an integrated digital content ecosystem protected by industry-standard TPMs that could be licensed to manufacturers and content creators.¹⁴ This ecosystem was

¹¹ UNITED STATES COPYRIGHT OFFICE, *Section 1201 of Title 17: A Report of the Register of Copyrights* at i (June 2017) (“Congress recognized that the same features that make digital technology a valuable delivery mechanism—the ability to quickly create and distribute near-perfect copies of works on a vast scale—also carry the potential to enable piracy to a degree unimaginable in the analog context.”).

¹² See note 14, *infra*.

¹³ As Rhett B. Dawson, President, Information Technology Industry Council representing the Information Technology and Consumer Electronics companies testified before the House Commerce Subcommittee on Telecommunications, Trade and Consumer Protections assessing the impact of Section 1201 stated:

[T]he IT industry recognized the importance of protecting copyrighted digital content and joined with the motion picture and consumer electronics industries to form the Copy Protection Technical Working Group (“CPTWG”) to develop a mutually acceptable technological approach to digital copyright protection.

WIPO One Year Later: Assessing Consumer Access to Digital Entertainment on The Internet and Other Media, October 28, 1999 at 24 (“Dawson Testimony”).

¹⁴ The content industry was so adamant about including “robust protection” that the DVD standards group:

which had been struggling to define a definitive set of DVD formats, finally handed off the problem to an ad hoc organization called the Copy Protection Technical Working Group. The CPTWG assumed the task of evaluating copy-protection technologies and, although its goal was to merely stimulate informal debate, it managed to resolve issues that would otherwise have plagued the industry for years.

Digital Content Protection, Part II, available at <https://www.extremetech.com/computing/54910-digital-content-protection-part-ii>. See also Dawson Testimony at 24-25.

intended to protect digital content from unauthorized access at every step from source to a consumer's screen.

As referenced above, Intel, through its subsidiary DCP, is the creator and licensor of one of the industry-standard TPMs—High-bandwidth Digital Content Protection (“HDCP”)—that encrypts all copyrighted digital content as it is transmitted over an HDMI connection.¹⁵ Currently, all known video delivery systems that incorporate HDMI transmission employ HDCP to protect copyrighted content. Intel, through DCP, has over 800 active HDCP licenses to device manufacturers, and has issued tens of billions of HDCP encryption and decryption keys. The ubiquity of HDCP as an audiovisual TPM is indicative of the important role played by all industry-standard TPMs.¹⁶ Without the protection of these TPMs, pirates could siphon copyrighted content during storage, transmission, or display and distribute it in an unprotected format.

While the protection provided by TPMs is not infallible, it does deter ordinary, non-technical consumers from easily making or distributing copies of copyrighted digital content. The members of the Working Group recognized that a skilled and well-resourced hacker could defeat any encryption system given enough time; however, they also knew that isolated incidents of hacking would not pose a serious threat to the digital content ecosystem so long as the hack was not easily accessible to non-technical consumers. What concerned the Working Group was the possibility that a hack could be broadly circulated in legitimate markets, making TPMs useless.

Technology was insufficient to solve this problem, so the members of the Working Group advocated for legal protection. After careful consideration of the needs of the American public, the industries, and those interested in preserving the

¹⁵ HDMI, a high-speed wired (or, more recently, sometimes wireless) device interconnect, delivers content between the encrypted source of that audiovisual content and a digital display or another connected licensed device. Such encrypted sources could be a DVD or Blu-ray player, an Internet Streaming video device (e.g., Netflix or Amazon Prime Video via a Roku or AppleTV set-top box), or a cable set-top box. Each of those sources decrypts the audiovisual content, and passes the content to the HDCP function in the device, which re-encrypts the content, confirms the destination (called a “sink”), then streams the encrypted video over the HDMI connection. If the sink is a screen, it securely decrypts and displays the video.

Almost without exception, encrypted delivery systems that encrypt video content require device manufacturers to license material (such as keys) to decrypt the content. Those licenses limit the output for transmission to other devices to “protected” outputs using approved protection systems. For the HDMI connection, those delivery systems almost universally permit the output only if it uses HDCP.

¹⁶ FINAL RULE, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 83 Fed. Reg. 54027 (October 26, 2018) (In recommending against a broad exemption to circumvent HDCP for any non-infringing use, the Register concluded: “the proposed exemption was overly broad, as HDCP is the industry standard for protecting audiovisual works in transit to a display device, and thus limiting the proposal this way did not very meaningfully focus the scope beyond the starting point of all audiovisual works.”)

ability to make fair use of copyrighted works, Congress passed Section 1201 of the DMCA.¹⁷

B. The Reliable Protection Provided by Section 1201 is Essential to the Maintenance of Industry-Standard TPMs and the Digital Content Ecosystem.

Section 1201 secures the bedrock assumption upon which the entire digital content ecosystem has been constructed: digital content can be distributed broadly without fear that such distribution will leave it open to easy and widespread infringement due to future hacking of TPMs.¹⁸ While the hacking of industry standard TPMs is inevitable, Section 1201 prevents such hacks from entering the mainstream marketplace and disrupting the demand for legitimate content. The codification of Section 1201 provides content creators with confidence that robust anti-circumvention and anti-trafficking protections will be continuously enforced to secure digital content.¹⁹

As this Subcommittee will see in testimony of those in the content industry, it is this confidence that persuaded the content industry to entrust their content to standardized methods for encryption, transmission and decryption. These standardized methods are now employed across billions of devices and protect many millions of copyrighted works. While TPM standardization benefits consumers by facilitating broad interoperability between devices and content, it also leaves the digital content ecosystem vulnerable should a malicious actor be permitted to broadly circulate a hacking technology to the general public. The commercialization of a single device capable of circumventing a standardized TPM, or the broad dissemination of the code to do so, could result in nearly all digital content being subject to unauthorized access, copying, and redistribution. The legal protections of Section 1201 are intended to provide a critical supplement to the physical protection of TPMs,

¹⁷ Section 1201, and the DMCA more broadly, also implemented Article 11 of the WIPO Copyright Treaty of 1996, which required signatories to enact legal protections against the circumvention of TPMs. Article 11 states, “Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.”

¹⁸ Consistent with Congressional intent. See UNITED STATES COPYRIGHT OFFICE, *Section 1201 of Title 17: A Report of the Register of Copyrights* at i (June 2017) (“By providing independent legal protection for technologies used by copyright owners to prevent piracy, Congress sought to bolster rightsholders’ willingness to make their works available to the public in a variety of digital formats.”).

¹⁹ Brief of Amici Curiae Ass’n of Am. Publ’rs., Inc., Enter. Software Ass’n, Motion Picture Ass’n, & Rec. Ind. Ass’n of Am., Inc. at 13, *Green v. Dept. of Justice*, 16-cv-01492 (D.D.C. Nov. 5, 2019), ECF No. 45 (“In designing their diverse offerings, authors and creative businesses need the assurance that the marketplace is protected from widespread availability of hacking tools that render useless the limitations on digital access that make these offerings possible.”).

and allow government and private industry to prevent hacking devices from securing a foothold.

Today, Section 1201 is functioning precisely as intended. It has facilitated the safe dissemination of billions of copies and streams of copyrighted digital content and has prevented the emergence of a legitimate market for circumventing devices. Because content creators feel secure in the protection provided by industry standard TPMs, Section 1201 has also been effective in providing American consumers with a broad range of choices in the content they consume, the devices they purchase, and the manner in which they consume such content.²⁰ Consumers generally do not have to worry about whether their new Blu-ray players will play their existing DVDs. Nor do they have to worry that a Sony Blu-ray player will only be able to play content from Sony Pictures Studios. The use of industry-standard TPMs backed by Section 1201 protections ensures that protected content can be played on nearly all home networks, and that playback devices can communicate seamlessly with one another, regardless of manufacturer, to deliver protected content to the consumer. This system works so well that most consumers are unaware the content they view is protected by TPMs.

The passage of Section 1201 corresponded with a dramatic increase in the availability of high quality digital audiovisual content. But Section 1201 accomplished far more than just facilitating increased visual and audio quality of content for home consumption. TPMs and the legal protections afforded by Section 1201 directly enabled the growth of consumption choices available to consumers of audiovisual content from purchase and rental to pay-per-view and subscription streaming. By limiting the distribution of pirated content through legitimate channels, Section 1201 reduces the cost of digital piracy.²¹ Consumers get exactly what they pay for: the right to view, rent, or own²² a copy of copyrighted audiovisual content. American consumers now have access to a plethora of digital content at low prices. For less than \$10 per month, a consumer can subscribe to Netflix, Hulu, Disney+, or Amazon's Prime Video and gain access to thousands of motion pictures and television shows.²³ Such prices and huge selection of digital content simply would

²⁰ NOTICE OF INQUIRY, *Section 1201 Study: Notice and Request for Public Comment*, 80 Fed. Reg. 81372 (Dec. 29, 2015) (“Since the enactment of section 1201, the use of technological measures has been useful in expanding consumer choice and the avenues for dissemination of creative works, for example, movies and video games.”).

²¹ Even with the protections provided by standardized TPMs, digital piracy is estimated to cost the U.S. economy \$29.2 billion every year. See David Blackburn, Ph.D, *et. al*, *Impacts of Digital Video Piracy on the U.S. Economy* ii (June 2019), <https://www.theglobalipcenter.com/wp-content/uploads/2019/06/Digital-Video-Piracy.pdf>

²² It is noted that the content itself is almost never owned by the consumer. The consumer may own the physical media but the content is licensed by the studio or content owner.

²³ As of the time of this testimony, the most affordable plans on Netflix, Hulu, Disney+, and Prime Video were priced at \$8.99, \$5.99, \$6.99, and \$8.99 per month respectively. See Allegra Frank, *et al.*,

not be possible if content creators lacked confidence in the ability of TPMs to prevent widespread unauthorized copying and redistribution of their content.²⁴

Judged by the explosion in digital content creation and consumption over the last two decades, Section 1201 has proven to be effective and flexible. It stabilizes a market that would otherwise be plagued with piracy and factionalism and gives creators confidence that their investments in high quality content will be appropriately rewarded in the market. Today, the digital industry as a whole contributes more than one trillion dollars to the U.S. GDP and countless billions of hours of entertainment and enrichment to the lives of Americans. This would not be possible without Section 1201.

II. THE FLEXIBILITY OF THE CURRENT TRIENNIAL RULEMAKING PROCESS MEETS THE NEEDS OF THE DIGITAL MARKETPLACE.

When enacting the DMCA, Congress recognized that the unrestricted enforcement of Section 1201's anti-circumvention provisions could diminish the public's ability to make certain lawful uses of copyrighted works.²⁵ To guard against this possibility, Congress established a triennial rulemaking process whereby the Librarian of Congress and the Register of Copyrights were empowered to grant limited exemptions to the anti-circumvention provision of Section 1201 for certain non-infringing uses of legally-acquired content. Over the last 20 years, and seven triennials, the Librarian of Congress has responded to hundreds of individual petitions for exemptions and carved broad categories of exempted uses and users.²⁶ This evidence-based process has ensured that exemptions are granted where

The Best and Worst of the Biggest Streaming Services, VOX.COM (July 24, 2020), <https://www.vox.com/culture/2020/5/29/21263715/hbo-max-peacock-netflix-hulu-disney-plus-amazon-apple-cbs-all-access-streaming-service-guide>.

²⁴ Brief of Amici Curiae Ass'n of Am. Publ'rs., Inc., Enter. Software Ass'n, Motion Picture Ass'n, & Rec. Ind. Ass'n of Am., Inc. at 13, *Green v. Dept. of Justice*, 16-cv-01492 (D.D.C. Nov. 5, 2019), ECF No. 45 ("For example, subscription-based, digital access to movies, television content, books, magazines, music, or videogames, as well as inexpensive, time-limited access to downloads of such works, would not be a viable business model without legal protection for access controls. In designing their diverse offerings, authors and creative businesses need the assurance that the marketplace is protected from widespread availability of hacking tools that render useless the limitations on digital access that make these offerings possible.").

²⁵ UNITED STATES COPYRIGHT OFFICE, *Section 1201 of Title 17: A Report of the Register of Copyrights* at ii (June 2017).

²⁶ The Librarian of Congress' 2018 Final Rule contained exemptions for circumventing TPMs for the following purposes, among others: gaining access to personal health information generated by implanted medical devices; unlocking and jailbreaking of smartphones, tablets, and other connected devices; security research on computer programs; and use of film clips for documentary filmmaking and educational programming in libraries. See FINAL RULE, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 83 Fed. Reg. 54010 (Oct. 26, 2018).

necessary to satisfy fair use imperatives in the digital content marketplace and has also protected the interests of the American consumer and the content industry in preserving the security of the digital content ecosystem. Radical legislative changes to this successful process are unnecessary.

A. The Existing Exemption Process Ensures a Careful Evaluation of Competing Interests by Subject Matter Experts.

Just as the major statutory provisions of Section 1201 have been successful in meeting the needs of the American consumer and the digital content ecosystem, so too has the triennial rulemaking process been effective at satisfying the demand in the digital marketplace for non-infringing secondary uses of digital content. The current exemption process allows for the careful balancing of interests necessary to preserve the security of the digital content ecosystem—and the corresponding benefits to the consumer—while allowing acts of circumvention where necessary to facilitate appropriate non-infringing uses. The Librarian of Congress and Register of Copyrights, with extensive public input, have created and refined a system that works exceptionally well.

Intel, like others in the information technology industry, recognizes the societal value in non-infringing fair uses of digital content. Such uses can help develop the digital content market by providing greater access to traditionally underserved segments of the population, like those with disabilities. However, steps taken to facilitate non-infringing uses can also create incremental risk of infringing use if not appropriately regulated. For example, a tool created to circumvent the TPMs protecting a motion picture for the purpose of enabling educational uses in libraries can just as easily be inappropriately used to circumvent the TPM so that the content can be globally redistributed without authorization on the Internet. Requiring interested parties to petition for an exemption before engaging in circumvention, and limiting exemptions to acts of circumvention rather than the distribution of circumventing tools, ensures that the risk of infringing use is minimized and the need for non-infringing fair use in specific cases is satisfied.

Section 1201's existing exemption process provides great value by encouraging an evidence-based approach, and granting exemptions only when necessary to serve a proven need. Those seeking a new exemption are required to show why such an exemption would allow an appropriate fair use and why circumvention is necessary to achieve such fair use.²⁷ Those who oppose exemptions are likewise given the ability to show why an exemption would unduly facilitate infringing use or be harmful to the

²⁷ See NOTIFICATION OF PROPOSED RULEMAKING, *Exemptions to Permit Circumvention of Access Controls on Copyrighted Works*, 82 Fed. Reg. 49550-52, 49558 (October 26, 2017) (describing the evidentiary requirements for petitioners who seek new exemptions).

content marketplace and the American consumer.²⁸ A lack of evidence is fatal on either side.²⁹ Where there is a dispute over a particular requested exemption, the balancing of competing interests is conducted by subject matter experts with decades of expertise. The Librarian of Congress and the Registrar of Copyrights have the technocratic skills to balance these interests—it is their mandate.³⁰

Some commenters have pointed to fair uses that are not currently facilitated by an exemption as evidence that the regulatory process is broken or ineffective. This is not the case. The Copyright Office is only empowered to promulgate an exemption after receiving a petition showing that an exemption is required to facilitate an appropriate non-infringing use.³¹ Such petitions indicate that there is a demand in the digital marketplace for the requested use. The fact that some potential fair uses are not currently covered by an exemption reflects either the lack of a petitioner demand for the exemption, or the failure of the proposed exemption to meet the statutory criteria. Requiring both petitioners and opponents to actively engage in the rulemaking process prevents exemptions from being granted where they are not necessary and where the risk of infringing activity is too high. In circumstances where petitioners have required assistance in drafting or filing, groups like the Electronic Frontier Foundation, Consumers Union, and university and law school professors have provided assistance.

B. The Copyright Office’s New Streamlined Approach to Renewing Existing Exemptions Creates Continuing Exemptions While Maintaining Needed Flexibility.

Several commenters in these hearings have suggested the need for additional permanent exemptions to be codified into law or for a mechanism to create such permanent exemptions through rulemaking. Such a change is unnecessary and can only serve to limit Section 1201’s future flexibility without a real-world benefit.

Continuing exemptions are already available in cases where there is consensus among the content creators and prospective fair users. In the seventh triennial rulemaking (2017-2018), the Copyright Office instituted a new “streamlined” process for renewing existing exemptions. In this streamlined process, proponents of an

²⁸ *Id.*

²⁹ *Id.*

³⁰ The Librarian of Congress is a lifelong librarian, and the Acting Register of Copyrights has been with the Copyright Office since 2010. See, *About the Librarian*, LOC.GOV, <https://www.loc.gov/about/about-the-librarian/>; see also, *Maria Strong Acting Register of Copyrights and Director of the U.S. Copyright Office*, COPYRIGHT.GOV, <https://www.copyright.gov/about/leadership/maria-strong.html>.

³¹ See NOTIFICATION OF INQUIRY AND REQUEST FOR PETITIONS, *Exemptions to Permit Circumvention of Access Controls on Copyrighted Works*, 85 Fed. Reg. 37399 (June 22, 2020).

existing exemption can petition to have the exemption renewed by certifying that they are not aware of material changes in fact, law, or other circumstances that would justify reevaluating the basis for the exemption.³² These petitions are easily submitted and seldom are longer than a few paragraphs.³³ If the Copyright Office does not receive an objection outlining relevant new circumstances, the exemption will be renewed without going through the traditional three-step³⁴ commenting process. In the last triennial rulemaking process, the Register of Copyrights considered petitions to renew sixteen existing exemptions.³⁵ Twelve of those sixteen renewals were unopposed, including renewals for exemptions for assistive technologies, unlocking of certain devices, educational uses, and others.³⁶ The lack of opposition to all but four of the renewal requests demonstrates that the rulemaking process can successfully create a consensus among initially-opposed parties. If this consensus continues, the continuing exemption restructures the marketplace.

Intel believes that further streamlining of the renewal process may be beneficial both to petitioners and content creators. The current streamlined renewal process requires petitioners to state a justification as to why renewal is warranted for particular exemptions.³⁷ Such justifications often lead to debate regarding whether the petition actually seeks a more expansive interpretation of an existing exemption. This debate is largely unnecessary and unproductive and can pit parties against each other who would otherwise agree that renewal of an exemption is appropriate. Intel favors empowering the Copyright Office to solve this problem by further streamlining the renewal process in two respects.

First, the Copyright Office should be permitted to renew exemptions without requiring petitioners to state a detailed justification for the renewal. The renewal

³² See FINAL RULE, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 83 Fed. Reg. 54012 (Oct. 26, 2018) (describing the streamlined renewal process: “the Office first solicited petitions summarizing the continuing need and justification for the exemption, and petitioners signed a declaration stating that, ‘to the best of their personal knowledge, there has not been any material change in the facts, law, or other circumstances set forth in the prior rulemaking record such that renewal of the exemption would not be justified’”).

³³ As an example, the renewal petition for the exemption for personal health information generated by implanted medical devices contained less than a page of text. See *Petition of Hugo Campos to Renew a Current Exemption Under 17 U.S.C. §1201*, <https://cdn.loc.gov/copyright/1201/2018/petitions-073117/Renewal%20Pet.%20-%20Medical%20Devices%20-%20Medical%20Device%20Research%20Coalition.pdf>

³⁴ This three-step process includes the submission of supporting comments, opposition comments, and reply comments.

³⁵ FINAL RULE, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 83 Fed. Reg. 54013-15 (Oct. 26, 2018).

³⁶ *Id.*

³⁷ See, UNITED STATES COPYRIGHT OFFICE, *Petition to Renew a Current Exemption Under 17 U.S.C. § 1201, Eighth Triennial Rulemaking* (2020), <https://www.copyright.gov/1201/2021/renewal-petition.pdf>

form should be modified to require only an identification of the petitioner, a certification that the petitioner is currently a user of an existing exemption, and a request that the exemption be renewed in its current form. Though parties would still be permitted to raise objections to renewal petitions, the objectors would have the burden to detail a change in relevant conditions that justifies not renewing the exemption.

Second, if renewal petitions for the same exemption are granted in two successive triennials, the Copyright Office should be permitted to suspend the requirement for further renewal petitions and create a continuing exemption. Objections to the continuing exemption would still be permitted in later rulemaking proceedings, but again the burden would be on the objector to show that changing conditions justify reconsidering the continuing exemptions. With these two changes, the already-small burden of the renewal process could be further reduced without limiting the flexibility of the rulemaking process or tying the hands of the Copyright Office.

Permanent exemptions should not be explicitly regulated or legislated, but rather should be created by the consensus process described above. The modified streamlined process proposed by Intel is designed to create continuing exemptions where there is true consensus among all relevant stakeholders and to reduce the burden on petitioners. However, the streamlined process also preserves necessary flexibility where the codification of permanent exemptions would not. Should technological improvements or market developments alter the need for a particular exemption—requiring either expansion or additional limitations—the rulemaking process would be well equipped to reconsider the exemption.³⁸ This flexibility avoids a scenario where antiquated permanent exemptions that serve no purpose in the creative marketplace linger in statute or regulation and create opportunities for infringement with no benefit to the public.

III. POTENTIAL ANTI-TRAFFICKING EXEMPTIONS RAISE SERIOUS SECURITY CONCERNS, CREATE OPPORTUNITIES FOR INFRINGEMENT AND ARE UNWARRANTED IN LIGHT OF EXISTING REGULATORY ALTERNATIVES.

In these DMCA hearings and elsewhere, questions have been raised about whether the Copyright Office can better assist non-technical users who wish to

³⁸ An initial exemption may impose limitations that later proceedings demonstrate to be too restrictive. For example, initial education-related exemptions did not allow K-12 students to themselves use the exemption in multi-media education projects. At that time, the technology for such projects was itself difficult for K-12 students to use. If the exemption had been fixed in the statute at that point, Congress would have been required to amend the law when it later became possible for K-12 students to themselves make use of the technology for multi-media projects. The updated streamlined process proposed above would facilitate both renewals of agreed-upon exemptions and adjustment of exemptions to reflect advances in technology or market uses.

engage in permitted acts of circumvention under an existing exemption. Intel supports efforts to make existing exemptions more user-friendly. However, we strongly oppose the suggestion that the only way to facilitate use of existing exemptions is to permit the trafficking of circumventing devices. Such trafficking poses an existential threat to the digital content ecosystem and would undermine the ability of all consumers to safely and legally access audiovisual content.

Anti-trafficking exemptions are a risky solution to a non-existent problem. The prohibition against trafficking has never been interpreted to bar legitimate circumventing activities by the users of an existing exemption. Recognizing this fact, the Copyright Office has issued guidance and crafted practical exemptions that enable circumvention by non-technical parties. Additional legislation on this point is unnecessary.

A. Permitting Exemptions to the Anti-Trafficking Provision of Section 1201 Would Undermine the Ability of the Digital Content Ecosystem to Meet the Needs of Lawful Consumers.

The anti-trafficking provision of Section 1201 is the lynchpin of the digital content ecosystem. As described above, the foundational assumption of this ecosystem is that content creators can distribute their content broadly and have confidence that the anti-trafficking provision of the Section 1201 will prevent everyday consumers from circumventing protective TPMs. The mere possibility of exemptions to the anti-trafficking provision could fatally undermine this assumption and cripple the digital content ecosystem, putting the trillion-dollar digital industry at risk and abandoning decades of cooperative investment in digital infrastructure.

Anti-trafficking exemptions leave no room for error, adjustment, or flexibility. Once a trafficking device is marketed and sold to consumers, it cannot be practically withdrawn from circulation. Unlike anti-circumvention exemptions, which can be modified or abandoned if they prove less useful than expected, should an anti-trafficking exemption be improvidently granted, the effects on the marketplace would be permanent. Further, generally speaking, a circumvention device cannot distinguish between exempt behavior and infringing behavior. Consequently, even those devices³⁹ sold with the intention to facilitate non-infringing use under an existing exemption could easily be used for widespread infringement.⁴⁰

The possibility that anti-trafficking protections could be weakened through regulation would create immediate and irreversible negative consequences in the

³⁹ The device could be hardware or software.

⁴⁰ UNITED STATES COPYRIGHT OFFICE, *Section 1201 of Title 17: A Report of the Register of Copyrights* at 56 (June 2017) (“[T]he Office agrees with the commenters who argued that it would be impossible to control the downstream uses of any circumvention tools once distributed, even if they were produced with the intent that they be used only to assist authorized circumvention.”).

content marketplace. Content creators, the consumer electronics industry, and the IT industry would be sure to take protective steps to guard against a circumventing device gaining broad distribution without an adequate legal remedy. These steps would create substantial costs to both the industries and to consumers.

B. Under the Existing Regulatory Framework, the Librarian of Congress has Struck the Right Balance Between Ease of Use and Content Protection.

Anti-trafficking exemptions are simply not necessary to facilitate non-infringing uses of digital content, so long as those uses fall within an existing anti-circumvention exemption. The Copyright Office has noted a dearth of evidence showing that the prohibitions against manufacturing and trafficking in circumventing tools “are, as a practical matter, preventing beneficiaries from creating or utilizing circumvention tools to a significant degree.”⁴¹ The Office concluded that “there is not yet a pressing need for legislative action” in this area.⁴² Intel agrees. We are not aware of any litigation attempting to enforce Section 1201’s anti-trafficking prohibition against the beneficiaries of an anti-circumvention exemption. Any legislation aimed at “freeing” exempted users from the fear of anti-trafficking enforcement would create the potential for upheaval in the digital content ecosystem with no practical impact on non-infringing use.

In addition, the Copyright Office has already taken steps to ensure that the beneficiaries of existing exemptions are able to put those exemptions to full use. The Office has clarified that, in some circumstances, individual users already have the ability to use existing tools or create their own tools to facilitate exempted acts of circumvention.⁴³ This ability is also supported by members of the content protection industry who have expressed a willingness to aid exempted users with acts of circumvention.⁴⁴

⁴¹ *Id.* at 54.

⁴² *Id.*

⁴³ *See id.* at 53 (“The legislative history of section 1201 explicitly demonstrates Congress’ intent to exclude such generally available software tools, including compilers, disassemblers, password-recovery utilities, and commercial “key cracker” products, from the reach of the prohibition.”); *see also id.* at 55 (“[T]he Office does not believe any legislative change to the manufacturing provision is currently necessary and that section 1201 should not be interpreted to prohibit permitted beneficiaries from creating a circumvention tool for personal use.”).

⁴⁴ The licensors of the industry-standard TPMs protecting digital audiovisual content on DVDs and Blu-ray Discs, DVD CCA and AACS LA, have stated their willingness to “work with the relevant parties to license specific tools to facilitate exemptions that the Librarian has granted (or to include such licensed tools in the context of the actual grant of an exemption).” *See* ADDITIONAL COMMENTS DVD CCA, AACS LA, *Section 1201 Study: Request for Additional Comments*, COLC-2015-0012-0129 (Oct. 27, 2016), <https://beta.regulations.gov/comment/COLC-2015-0012-0129>.

For users without the technical ability to access or apply circumventing tools, the Copyright Office has been able to craft flexible anti-circumvention exemptions that allow specific third parties to provide assistance.⁴⁵ For example, the education exemptions have permitted technical or library staff to perform circumvention on behalf of classroom teachers and professors, and accessibility exemptions have permitted school disability service officers to engage in circumvention on behalf of disabled or visually-impaired students.⁴⁶ Though these exemptions granted third-party assistance relief from Section 1201’s anti-circumvention provisions, the prohibitions against trafficking remained in place. These examples demonstrate the Copyright Office’s ability to grant narrowly-tailored exemptions that facilitate non-infringing use by their intended recipients while maintaining the integrity of the digital content ecosystem.⁴⁷

The current regulatory process strikes the appropriate balance between facilitating the use of existing exemptions and protecting the digital ecosystem from runaway infringement. It ensures that aid is available to users who need it, but also properly accounts for the fact that such assistance may not be appropriate for all industries or to facilitate all existing anti-circumvention exemptions.⁴⁸ Intel has

⁴⁵ The Copyright Office has stated that “where appropriate, [it] will seek to avoid recommending unduly narrow definitions of exemption beneficiaries. This may provide greater opportunity for the courts to provide guidance on the proper construction of the anti-trafficking provisions”. UNITED STATES COPYRIGHT OFFICE, *Section 1201 of Title 17: A Report of the Register of Copyrights* at 62 (June 2017).

⁴⁶ Final Rule, *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 83 Fed. Reg. 54030 (Oct. 26, 2018).

⁴⁷ Some have suggested that legislation is required to enable the Librarian of Congress and the Copyright Office to allow third-party servicers to aid the beneficiaries of anti-circumvention exemptions. Given that the Librarian has already provided for third-party assistance through the existing rulemaking process, legislative changes are unnecessary and can only serve to open the door to infringing actions. Also, *see supra* note 45.

⁴⁸ Though comments about specific exemptions are best left to the rulemaking process, the exemption for the repair and modification of automobile software deserves brief discussion as it appears to be of special interest to the Subcommittee. As stated above, Intel—through its subsidiary, Mobileye—is a leader in the development of advanced driver assistance technologies, up to and including fully autonomous vehicles. This expertise gives Intel insight into the unique security challenges posed by some autonomous driving software. In order to ensure the correct performance of the automated driving features, automated driving software requires careful calibration, testing, and security measures. Further weakening the current DMCA protections for vehicle software by allowing third parties to access and modify this automation software—regardless of intention—risks undermining efforts by automotive companies to maintain and strengthen vehicle security and protect against cyberattacks (consistent with cybersecurity best practices and the National Highway Traffic Safety Administration’s guidance) and may endanger the automobile user as well as passengers, pedestrians, and other drivers. The unique nature of automation features strongly counsels against expanding the existing exemption relating to the diagnosis, repair, or lawful modification of vehicle software.

confidence that the Copyright Office can effectively resolve competing interests and bring opposing parties to lasting consensus.

IV. CONCLUSION

Section 1201 is operating as intended and does not require major revision. The anti-circumvention and anti-trafficking provisions have effectively served the needs of the American consumer for more than two decades, and have resulted in an explosion in the availability of low-cost, high-quality digital content. Reliable enforcement of these provisions is the best way to ensure that the digital content ecosystem remains healthy and continues to grow. Similarly, the flexibility of the triennial exemption continues to meet the needs of the evolving digital marketplace. Disrupting this flexibility with additional statutorily mandated exemptions or by diluting anti-trafficking protections poses unnecessary risks to a well-functioning system. With minor legislative tweaks, like additional streamlining of the exemption renewal process, Section 1201 is well positioned to meet the needs of Americans in the decades to come.

It is Intel's stated purpose to "create world-changing technology that enriches the lives of every person on Earth."⁴⁹ Section 1201 has been, and remains, critical to reaching this goal.

⁴⁹ INTEL CORPORATION, *2019 Annual Report* 10 (Jan. 23, 2019), <https://www.intc.com/financial-info/financial-results>