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CHAPTER 12 OF TITLE 17

HEARING

BEFORE THE

SUBCOMMITTEE ON
COURTS, INTELLECTUAL PROPERTY,
AND THE INTERNET

OF THE

COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

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CHAPTER 12 OF TITLE 17

WEDNESDAY, SEPTEMBER 17, 2014

HOUSE OF REPRESENTATIVES

SUBCOMMITTEE ON COURTS, INTELLECTUAL PROPERTY, AND THE INTERNET

COMMITTEE ON THE JUDICIARY

Washington, DC.

The Subcommittee met, pursuant to call, at 10:04 a.m., in room 2141, Rayburn Office Building, the Honorable Tom Marino (Vice-Chairman of the Subcommittee) presiding.

Present: Representatives Marino, Goodlatte, Chabot, Issa, Poe, Farenthold, Holding, Collins, DeSantis, Smith of Missouri, Nadler, Conyers, Chu, Deutch, and Jeffries.

Staff Present: (Majority) Joe Keeley, Subcommittee Chief Counsel; Olivia Lee, Clerk; (Minority) Jason Everett, Counsel; and Norberto Salinas, Counsel.

Mr. MARINO. I am calling to order the Subcommittee on Courts, Intellectual Property, and the Internet. Without objection, the Chair is authorized to declare a recess of the Subcommittee at any time. And we welcome all of you witnesses here today and look forward to your testimony.

I am going to begin with an opening statement on behalf of the Chairman, Howard Coble. He has six things going on this morning. I only have five. So I am sitting in for him.

This morning, the Subcommittee will hear testimony concerning a critical component of our Nation's copyright laws that protect copyrighted works from theft. Chapter 12 of Title 17 ensures that digital locks can be used effectively by copyright owners to protect their works. I was here when the DMCA, and I am speaking for Mr. Coble, was debated. [Laughter.]

VOICE. Mr. Coble was here.

Mr. MARINO. And Chapter 12 was there and remains today a critical component for the protection of our Nation's intellectual property.

Some have raised concerns about how the DMCA has been used by companies for purposes other than protecting copyrighted content. Fortunately, courts have generally gotten it right in determining when digital locks are used for protecting content and when they are used to protect anti-competitive behavior. As everyone knows, Mr. Coble has not been a fan of those who abuse the legal

system using our Nation's intellectual property laws whether they are copyright, patent or trademark laws. And I concur with him.

So we'd like to hear more about ways to ensure that Chapter 12 is used to protect copyrighted works rather than printer cartridges and garage door openers as has been attempted before. The Copyright Office has just announced the start of its next triennial 1201 rulemaking process. Congress recently enacted legislation concerning cellphone unlocking and I would like to hear the witnesses talk about how the law should or should not be used as a template for other potential legislation in this area.

The digital economy has enabled wide distribution of movies, music, eBooks and other digital content. Chapter 12 seems to have a lot to do with the economic growth and I look forward to hearing about the strengths of Chapter 12 and any perceived weaknesses this morning. Thank you all for being here today.

I would like to now recognize the Ranking Member, the distinguished gentleman from New York, Mr. Nadler, for his opening statement.

Mr. NADLER. Thank you, Mr. Chairman.

Today we consider Chapter 12 of Title 17 of the Copyright Act and examine how effective it has been in the digital era. We will review whether the anti-circumvention provisions of the Digital Millennium Copyright Act or the DMCA have been effective and have been used as Congress envisioned.

Congress enacted the DMCA in 1998 to implement certain provisions of the WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty and to prevent digital piracy and promote electronic commerce. I welcome this opportunity to hear from our witnesses about how Chapter 12 of Title 17 is working and what, if any, changes might be necessary and appropriate.

The DMCA has been effective and has worked to encourage the creation of new digital works and has allowed authors a way to protect against copyright infringement while also helping to promote the development of new and innovative business models. Some of the witnesses today will argue that these anti-circumvention provisions have been used to stifle a variety of legitimate activities. However, the DMCA has also been successful by promoting the creation of many new legal online services in the United States that consumers use to access movies and TV shows.

Companies that distribute their works digitally often use technological protection measures or TPMs to protect their works from unauthorized access or use. These TPMs are used to prevent unauthorized access to copyrighted works and are referred to as access controls. There are also TPMs to protect against the unlawful reproduction or duplication of copyrighted works. Copyright owners depend on these TPMs as an effective way to respond to copyright infringement and a way to make their works available online. Although piracy continues, TPMs have played a key role in reducing it, particularly in the video game market.

We should also study whether the triennial rulemaking process is working efficiently. The DMCA has been flexible enough to deal with technology changes. Every 3 years, the Librarian of Congress, upon the recommendation of the Register of Copyrights, exempts certain types of works from Section 1201. This rulemaking pro-

ceeding ensures that there is a process to monitor the developments in the marketplace for copyrighted materials and is initiated by the Register of Copyrights. There have been five triennial rulemaking proceedings since 1998 and soon the Copyright Office will begin the sixth.

During the rulemaking process, the Register of Copyrights and the Librarian of Congress assess whether the implementation of access controls impairs the ability of individuals to make non-infringing use of copyrighted works within the meaning of Section 1201(a)(1). For the upcoming sixth triennial rulemaking process, the Copyright Office has announced some procedural adjustments to enhance public understanding of the rulemaking process. I would like to hear the witnesses discuss these changes which will include allowing parties seeking exemptions to be required to provide the Copyright Office only with basic information regarding the essential elements of the proposed exemption. The Copyright Office will also offer a short submission form to assist members of the public to voice their views so they do not have to submit a lengthy submission.

While it is clear that the DMCA has not always worked as intended, enactment of the DMCA has led to a long period of innovation and benefits for consumers. Section 1201 has proven to be extremely helpful to creators because it has helped creators to have the confidence to provide video content over the internet despite the risk of piracy. And Section 1201 has helped deter theft of unauthorized access by/or unauthorized access by prohibiting circumvention of protection measures and trafficking tools designed for circumvention.

I thank Chairman Coble and Chairman Goodlatte for including this issue as part of the Subcommittee's review of the Copyright Act. I look forward to hearing from our witnesses and I yield back the balance of my time.

Mr. MARINO. Thank you, Mr. Nadler.

The Chairman of the full Committee, Mr. Bob Goodlatte, is en route but, in the interest of time, I would now like to recognize the full Committee Ranking Member, Mr. Conyers of Michigan, for his opening statement.

Mr. CONYERS. Thank you, Mr. Chairman.

And welcome to the witnesses.

Chapter 12 of the Copyright Act encourages the digital distribution of copyrighted material by safeguarding these works through technological protection measures. And so, today we discuss whether these measures are sufficiently effective and there are several factors I think we should keep in mind. It's a fundamental measure—matter. We need to ensure that Chapter 12 remains strong to prevent piracy and to keep the United States competitive globally.

Copyright law is critical to job development and the overall health of our Nation's economy. It is the foundation for our inventiveness and dynamic business culture; as well as vital to maintaining United States competitiveness. Intellectual property-intensive industries accounted for nearly 35 percent of our Nation's gross domestic product in 2010 and 40 million jobs, or a quarter of all jobs in the United States, are directly or indirectly attributable to the most intellectual property-intensive industries. An in-

tellectual property system that protects copyrights incentivizes their owners to continue to innovate and that in turn, of course, creates jobs and strengthens our Nation's economy.

Unfortunately, piracy and counterfeiting of American intellectual property are directly responsible for the loss of billions of dollars and millions of jobs. Now, according to a United States International Trade Commission report, Chinese piracy and counterfeiting of intellectual property cost American businesses approximately $48 billion in the year 2009. The commission also found that over 2 million jobs could have been created in the United States if China complied with its current international obligations to protect intellectual property rights.

Without question, piracy is devastating to our economy and harms our creators and innovators. And accordingly, we must continue to strengthen our Nation's copyright system. We need to provide more resources to protect copyright domestically and abroad. And to that end, Federal enforcement efforts designed to protect copyright must be fully funded. These include programs to deter the public from infringing copyright and law enforcement efforts to prosecute commercial infringers. And we need to encourage our countries to enact strong copyright laws. We need to encourage other countries to enact strong copyright laws and also to enforce the laws.

For example, China continues to host high levels of physical and digital copyright piracy by allowing its market to remain predominantly closed to the United States content companies, in clear violation of China's World Trade Organization commitments.

So I suggest that we should oppose efforts to weaken Chapter 12, because Chapter 12 encourages the use of technology protection measures to protect copyright by making it unlawful to circumvent these measures or to assist others in doing so. This strengthens our copyright system by cultivating innovative business models that encourage the lawful dissemination of copyrighted works to the public. This in turn discourages piracy and infringement. But nonetheless, some ignore the effectiveness of Chapter 12 by wanting to weaken it or even eliminate it.

For example, some critics contend that copyright owners use Section 1201, as a tool to stifle competition and repeatedly cite the laser printer cartridge replacement and garage door opener cases in support of their contention. Fortunately, courts in both these cases ruled against the companies who had attempted to use Chapter 12 to inhibit competition. Others contend that the triennial rulemaking process in Section 1201 is too narrow and limits potential exemptions.

For myself, I think that Chapter 12 maintains the necessary balance between strong copyright protection measures and a consumer driven marketplace for legitimate uses of copyrighted works. In fact, the process has resulted in dozens of exemptions being granted since 1998. Yet Congress and the Copyright Office should make the process even more efficient and user-friendly. Doing so will strengthen the copyright system.

And so, I look forward to hearing from our distinguished witnesses with respect to their suggestions for improving our Nation's

copyright system. I thank the Chair and yield back any time remaining.

Mr. MARINO. Thank you, Mr. Conyers.

Without objection, the Member's opening statement will be made part of the record. And without objection, other Members' opening statements will be made part of the record as well.

[The prepared statement of Mr. Conyers follows:]

Statement of the Honorable John Conyers, Jr. for the Hearing on Chapter 12 of Title 17 Before the Subcommittee on Courts, Intellectual Property and the Internet

Wednesday, September 17, 2014, at 10:00 a.m.
2141 Rayburn House Office Building

Chapter 12 of the Copyright Act encourages the digital distribution of copyrighted material by safeguarding these works through technological protection measures.

As we discuss today whether these measures are sufficiently effective, there are several factors that we should consider.

As a fundamental matter, we need to ensure that Chapter 12 remains strong to prevent piracy and to keep the United States competitive globally.

Copyright law is critical to job development and the overall health of our Nation's economy. It is the foundation for our inventiveness and dynamic business culture as well as vital to maintaining United States competitiveness.

IP-intensive industries accounted for nearly 35% of our Nation's gross domestic product in 2010. And, 40 million jobs -- or about a quarter of all jobs in the United States -- are directly or indirectly attributable to the most intellectual property-intensive industries.

An intellectual property system that protects copyrights incentivizes their owners to continue to innovate, and that, in turn, creates jobs and strengthens our Nation's economy.

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We need to provide more resources to protect copyright domestically and abroad.

To that end, federal enforcement efforts designed to protect copyright must be fully funded. These include programs to deter the public from infringing copyright and to promote law enforcement efforts to prosecute commercial infringers.

And, we need to encourage other countries to enact strong copyright laws and also to enforce those laws.

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This strengthens our copyright system by cultivating innovative business models that encourage the lawful dissemination of copyrighted works to the public. This in turn discourages piracy and infringement.

But nonetheless, some ignore the effectiveness of Chapter 12 by wanting to weaken or even eliminating it.

For example, critics contend that copyright owners use section 1201 as a tool to stifle competition and repeatedly cite the laser printer cartridge replacement and garage door opener cases in support of their contention.

Fortunately, courts in ***both*** of those cases ruled ***against*** the companies who had attempted to use Chapter 12 to inhibit competition.

Others contend that the triennial rulemaking process in section 1201 is too narrow and limits potential exemptions.

I believe that Chapter 12 maintains the necessary balance between strong copyright protection measures and a consumer-driven marketplace for legitimate uses of copyrighted works.

In fact, the process has resulted in dozens of exemptions being granted since 1998.

Yet, Congress and the Copyright Office should make the process more efficient and user-friendly.

Doing so will strengthen the copyright system.

And so, I look forward to hearing from today's distinguished witnesses particularly with respect to their suggestions for improving our Nation's copyright system.

Mr. MARINO. We have a distinguished, a very distinguished group of witnesses here today and I want to thank you for being here. The witnesses written statements will be entered into the record in its entirety. I ask that you summarize your testimony in 5 minutes or less. And, to help you stay within that time, there is a timing light on your table. When the light switches from green to yellow, you will have 1 minute to conclude your testimony. And when the light turns red, it signals that your 5 minutes have expired.

And Mr. Richert, you and I are a bit in the same boat. I am absolutely, totally color-blind. So I don't know what those lights are and what they mean when they light up and I can't even tell when they are lit. So my staff has to nudge me and say, "You have 1 minute." My staff has to nudge me and say that your time is up. But I will give you, just a very polite, quiet comment that you have a remaining minute and you can start to wrap up your testimony as well. And I please ask if you can keep your statements, folks, under 5 minutes so we can get going here.

Before I introduce our witnesses, I would like you to stand and be sworn in, please.

[Witnesses sworn.]

Mr. MARINO. Let the record reflect that the witnesses have agreed. And thank you and please be seated.

Our first witness today is Mr. Mark Richert, Director of Public Policy at the American Foundation for the Blind. In his position, Mr. Richert oversees the foundation's management and programs of key importance to individuals with vision loss. He received his J.D. from the George Washington University National Law Center, and his B.A. from Stetson University. Welcome, Mr. Richert.

Okay. I'm going to go, Mr. Richert, I'm going to continue and then get everybody's bios done so it doesn't interfere.

I'll make sure I do it a little harder the next time.

Our second witness is Mr. Jonathan Zuck, President of ACT, The App Association. In his position, Mr. Zuck has steered the association's growth into one of the most influential organizations at the intersection of technology and politics. He received his B.A. in international relations from Johns Hopkins University.

Welcome, Mr. Zuck.

Our third witness is Mr. Christian Genetski. Am I pronouncing that correct? Good.

Senior Vice-President and General Counsel for the Entertainment Software Association. In his position, Mr. Genetski oversees the association's legal matters including litigation, content protection technology, and intellectual property policy. He received his J.D. from Vanderbilt University and his B.A. from Birmingham-Southern College.

And welcome to you, sir.

And our fourth and final witness is Ms. Corynne?

Ms. MCSHERRY. Corynne.

Mr. MARINO. Corynne? Corynne. Thank you.

Corynne McSherry. Okay. Intellectual Property Director of EFF, the Electronic Frontier Foundation. Her practice focuses on protecting fair use, free speech and innovation in the digital world. She received her Ph.D. from the University of California, San

Diego; her J.D. from Stanford University; and her B.A. from the University of California, Santa Cruz.

Doctor, welcome.

Welcome to all of you and we start with you, Mr. Richert? And I am winking now, Mr. Richert. You're up.

TESTIMONY OF MARK RICHERT, DIRECTOR OF PUBLIC POLICY, AMERICAN FOUNDATION FOR THE BLIND

Mr. RICHERT. Thank you very much.

I'm on. Thank you very much. Wow, that's a powerful microphone.

Mr. Chairman, Ranking Member Nadler, honored Members of the Committee, thank you so much for inviting the American Foundation for the Blind to present this morning. I'm Mark Richert; I'm the Director of Public Policy for AFB.

If we have some claims to fame, certainly one of them at AFB is that Ms. Helen Keller devoted more than four decades of her extraordinary life to our organization. And as we know, Helen was quite the fierce advocate, not just the inspirational deaf-blind girl at the water pump learning to speak for herself and to have access to the whole world of information. But indeed, she was a pioneer and a champion for social and human rights. The other thing that people don't tend to remember about Helen is that she was quite a diva. Frankly, she was quite a handful and there's a lot to emulate about her but hopefully that won't be the impression that I leave with you this morning.

But we are so grateful for the opportunity to present today. And noting that our testimonies are now part of the record, let me just sort of enter into a conversation with you because yours truly and my distinguished panel is here, have a lot to share and there's a lot of complexity, arguably needless complexity, to the 1201 process. But let me begin sort of with the bottom-line up front. And that is that we believe, very strongly, that it's time for the entire sort of copyright regime to be looked at very, very carefully.

We're grateful that you all have, over the course of this calendar year, embarked on what we think is a very productive discussion and analysis of the copyright law, its successes and limitations. And we are confident that, out of that effort and its work going forward, that there will be a lot of I think, hopefully, very useful and productive proposals coming forward. Because it's time, it seems to us in any case, that we take not just a piecemeal sort of incremental approach, which does seem to be at least in part some of the origin of the troubles as we see it with Section 1201 and that process.

But it's time to take a much more sort of 35,000-foot view of the copyright structure. In particular, AFB back in the mid-to-late 90's, I had the privilege to be a part of this effort, worked to enact a portion of the copyright law known as the Chafee Amendment, which is, I'm sure you know, is the language that explicitly allows for folks with disabilities to reproduce materials in accessible formats without necessarily needing to acquire permission prior to doing so. And in our view that language really helped to sort of codify the notion that's been a part of our copyright system for a very long

time. Namely that, for certain purposes, certainly for providing access to people with disabilities, such access is clearly a fair use.

And we wanted to work as we did in the mid to late 90's with the American Association of Publishers and other owners groups to craft what we think was a very appropriate approach at that time, albeit segmented. It was limited at that time to nondramatic literary works. So it's very, very limited in scope but, nevertheless, I think a very important first step.

That having been said, the Chafee Amendment is itself a very, as I indicated, a very sort of narrow, incremental step. And, over the course of time, certainly in 1996, there were few of us, certainly least of all yours truly, who really thought much about how the internet, how mobile technology for sure and the whole world of technology would change all of our lives I think for the better and certainly permanently. And so now it's time, we believe, to——

Mr. MARINO. Mr. Richert, you have about a minute left, sir.

Mr. RICHERT. Thank you.

Now it's time to take a much more comprehensive view. In terms of the 1201 process, I think our experience has been that there are significant limitations to it. While the Copyright Office and the Librarian of Congress have certainly recognized the exemptions that we have asked for over the course of time, they've also been threatened to be taken away. And we came within a hairsbreadth of the exemption for eBooks that we worked so hard to get; almost got withdrawn. I think what that shows, even though that the rights of folks with disabilities to ready, certainly haven't changed, sometimes the process can threaten to fail people with disabilities. And I hope we have a chance to talk more about that.

So with that, I'll just conclude for now and look forward to the discussion that we're going to have.

Thank you so much.

[The prepared statement of Mr. Richert follows:]

Prepared Statement of Mark Richert, Director of Public Policy, the American Foundation for the Blind

Chairman Goodlatte, Ranking Member Conyers, Chairman Coble, Ranking Member Nadler, and Members of the Subcommittee, thank you for inviting me to speak about the experiences of the blind and visually impaired communities with the anti-circumvention measures in section 1201 of the Digital Millennium Copyright Act (DMCA). My name is Mark Richert, and I am the Director of Public Policy at the American Foundation for the Blind (AFB), a non-profit organization dedicated to removing barriers, creating solutions, and expanding possibilities so people with vision loss can achieve their full potential.[1] I'm grateful to Professor Blake Reid, Molly McClurg, and Mel Jensen at Colorado Law's Samuelson-Glushko Technology Law and Policy Clinic (TLPC) for their assistance in preparing this testimony.[2]

For 93 years, the AFB has sought to expand possibilities for the tens of millions of Americans with blindness or vision loss. We champion access and equality and stand at the forefront of new technologies and their ability to create a more equitable world for people with disabilities.

More particularly, we have worked for nearly a century to break down societal barriers and eliminate discrimination by achieving equal access to the world of copyrighted works. Helen Keller, the AFB's most famous ambassador and a noted deaf-blind author, activist, and teacher, once wrote about the importance of access to books for people who are blind or visually impaired:

[1] For more information, see http://www.afb.org/info/about-us/1.

[2] For more information, see http://www.colorado.edu/law/academics/clinics/technology-law-policy-clinic.

> In a word, literature is my Utopia. Here I am not disenfranchised. No barrier of the senses shuts me out from the sweet, gracious discourse of my book-friends. They talk to me without embarrassment or awkwardness.[3]

The advocacy of Helen and others led to the widespread adoption of braille, which transforms written text into raised dots readable by people who are blind or visually impaired. In 1952, Helen spoke of the critical role that access to braille versions of books and other written works played in affording people with disabilities access to the societal benefits of the copyright system:

> [T]hese raised letters are, under our fingers, precious seeds from which has grown our intellectual harvest. Without the [Braille dot system, how incomplete and chaotic our education would be! The dismal doors of frustration would shut us out from the untold treasures of literature, philosophy and science. But, like a magic wand, the six dots of Louis Braille have resulted in schools where embossed books, like vessels, can transport us to ports of education, libraries and all the means of expression that assure our independence.[4]

The adoption of braille ran in parallel with the development of other transformative accessibility technologies for copyrighted works. In 1878, Thomas Edison suggested that the newly developed phonograph player would lead to the use of "[p]honographic books, which will speak to blind people."[5] Blind inventor Robert Irwin helped adapt the phonograph to operate at slower speeds and offer longer play times.[6] The efforts of Irwin and others led to the adoption of accessible "Talking Book" recordings of printed books and magazines in the 1930s and later gave rise to a long-running staple of the music industry: the long-play record.[7] The Talking Book also foreshadowed the rise of the audiobook and modern text-to-speech and screen reader technologies, which are now poised to facilitate access to textual works for people with visual, print, and cognitive disabilities.

Access to copyrighted audiovisual works has also been a long-standing priority for people with disabilities. When "talkies" hit American theaters in the late 1920s, deaf and hard of hearing people who had previously enjoyed subtitled silent movies lost one of their primary sources of entertainment and information.[8] However, the arrival of the talkies led the deaf Hollywood actor Emerson Romero, cousin of Hollywood star Cesar Romero, to splice subtitles into the frames of feature films, documentaries, and short subjects for use by schools and clubs for deaf and hard of hearing people.[9]

The efforts of Romero and others gave rise to the modern captioning movement, which has resulted in the captioning or subtitling of a significant proportion of television and Internet-delivered video programming and motion pictures.[10] Romero's work foreshadowed the efforts of Gregory T. Frazier, a publisher and writer who conceived the idea of narrating visual elements of video programming during natural pauses in dialogue to facilitate access to movies for people who are blind or visually impaired, a process that became known as "audio description" or "video description."[11]

For all the promise of technology to provide equal access to copyrighted works, the copyright laws that protect those works have sometimes served to impede that technology. For example, in 1996, Congress enacted the Chafee Amendment to the Copyright Act in an effort to overcome what the National Library Service called "significant" delays in obtaining permission from copyright holders to create braille

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[3] Helen Keller & Annie Sullivan, *The Story of My Life* 117–18 (1924).

[4] Helen Keller, Speech Honoring Louis Braille at the Sorbonne, Paris (June 21, 1952), http://www.afb.org/section.aspx?SectionID=86& DocumentID=4620.

[5] United States Library of Congress, *The History of the Edison Cylinder Phonograph,* http://memory.loc.gov/ammem/edhtml/edcyldr.html.

[6] Frances A. Koestler, *The Unseen Minority: A Social History of Blindness in the United States,* http://www.afb.org/unseen/book.asp?ch=Koe-10.

[7] *Id.*

[8] Harry G. Lang & Bonnie Meath-Lang, *Deaf Persons in the Arts and Sciences: A Biographical Dictionary* 302–303 (1995).

[9] *Id.*

[10] *See generally* Karen Peltz Strauss, *A New Civil Right: Telecommunications Equality for Deaf and Hard of Hearing Americans* 205–273 (2006).

[11] See Robert McG. Thomas Jr., *Gregory T. Frazier, 58; Helped Blind See Movies with Their Ears,* NY Times, July 17, 1996, http://www.nytimes.com/1996/07/17/us/gregory-t-frazier-58-helped-blind-see-movies-with-their-ears.html.

and other alternate-format versions of books.[12] The Chafee Amendment reinforced Congress's and the Supreme Court's long-standing views that efforts to make copyrighted works accessible is a non-infringing fair use—a determination reaffirmed in the Second Circuit's recent *HathiTrust* decision.[13]

Just two years later, however, the first electronic book readers were released, and the ebook revolution was born—spawning with it a generation of books delivered with digital locks, or digital rights management (DRM) technology.[14] Along with ebooks came the DMCA and its anti-circumvention measures, which cast the circumvention of DRM into legal doubt, even for the explicitly non-infringing purpose of making a book accessible to a person who is blind or visually impaired—or for other non-infringing accessibility-related uses like adding closed captions or video descriptions to a DRM'd video program.

In short, the DMCA made the type of accessibility efforts Congress had sought to enable in the Chafee Amendment—efforts embodied in the long-standing goal of equal access codified in the Americans with Disabilities Act and other laws, including the recently enacted Twenty-First Century Communications and Video Accessibility Act (CVAA)—effectively illegal for digital books and other digital copyrighted works. The DMCA's triennial review process left the door open, however, for people with disabilities to ask for exemptions to the DMCA.[15]

And ask we did. In 2002, the AFB, other blind advocates, and library associations went to the Library of Congress—indeed, in the twenty-first century, in America—for permission to *read books.*[16] While the Library granted us that permission through an exemption from the DMCA in 2003, it expired, under the DMCA's provisions, just three years later.[17] And so we went back, again, in the 2006 review, and sought it again.[18] That time, we received it.[19]

But when we went back again to ask for the same exemption in the 2010 review, the Register of Copyrights recommended that it be denied.[20] Even though no one, including copyright holders, opposed the exemption, and even though the National Telecommunications & Information Administration recommended that it be renewed—we were a hair's breadth away from losing the legal right to read electronic books.[21]

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[12] Library of Congress, *NLS Factsheets, Copyright Law Amendment, 1996: PL 104–197* (Dec. 1996), http://www.loc.gov/nls/reference/factsheets/copyright.html.

[13] *See* H.R. Rep. 94–1476, at 73 (1976) ("[A] special instance illustrating the application of the fair use doctrine pertains to the making of copies or phonorecords of works in the special forms needed for the use of blind persons"); *Sony Corp. v. Universal City Studios,* 464 U.S. 417, 455 n.40 (1984) ("Making a copy of a copyrighted work for the convenience of a blind person is expressly identified by the House Committee Report as an example of fair use, with no suggestion that anything more than a purpose to entertain or to inform need motivate the copying."); *Authors Guild v. HathiTrust,* 755 F.3d 87, 101–03 (2d Cir. 2014) (citing the Americans with Disabilities Act and the Chafee Amendment in holding the provision of accessible books to library patrons with print disabilities a fair use).

[14] *See* Joel Falconer, *The 40-year history of ebooks, illustrated,* The Next Web (Mar. 17, 2011), http://thenextweb.com/shareables/2011/03/17/the-40-year-history-of-ebooks-illustrated.

[15] *See* 17 U.S.C. § 1201(a)(1)(C)–(D).

[16] *Comments of AFB,* Copyright Office Docket No. 2002–4E, *available at* http://copyright.gov/1201/2003/comments/026.pdf; *see also Comments on Rulemaking on Exemptions on Anticircumvention,* Copyright Office Docket No. 2002–4E (Comments 9, 20 & 33), *available at* http://copyright.gov/1201/2003/comments/index.html.

[17] *See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies,* 68 Fed. Reg. 62,011, 62,014, 62,018 (Oct. 31, 2003) (codified at 37 C.F.R. § 201.40), *available at* http://copyright.gov/fedreg/2003/68fr2011.pdf

[18] *Comments of AFB,* Copyright Office Docket No. RM 2005–11, *available at* http://www.copyright.gov/1201/2006/comments/discipio_afb.pdf.

[19] *See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies,* 71 Fed. Reg. 68,472, 68,475–76, 68,479 (Nov. 27, 2006) (codified at 37 C.F.R. § 201.40), *available at* http://www.copyright.gov/fedreg/2006/71fr68472.pdf.

[20] *See Comments of AFB,* Copyright Office Docket No. RM 2008–8, *available at* http://www.copyright.gov/1201/2008/comments/american-foundation-blind.pdf; *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies,* 75 Fed. Reg. 43,825, 43837–38 (July 27, 2010) ("2010 Final Rule") (codified at 37 C.F.R. § 201.40), *available at* http://www.copyright.gov/fedreg/2010/75fr43825.pdf.

[21] *See Reply Comments of the American Association of Publishers, et al.,* Copyright Office Docket No. RM 2008–8, at 50 (Feb. 2, 2009) ("Joint Creators and Copyright Owners do not oppose renewal of the exemption related to literary works in ebook format . . ."), *available at* http://www.copyright.gov/1201/2008/responses/association-american-publishers-47.pdf; *Reply Comments of the American Intellectual Property Law Association,* Copyright Office Docket No. RM 2008–8, at 1–2 (Feb. 2, 2009), *available at* http://www.copyright.gov/1201/2008/responses/aipla-23.pdf; Letter from Lawrence E. Strickling, National Telecommunications and Information Administration to Marybeth Peters, Register of Copyrights (Nov. 4, 2009) ("[E]ven a limited number of literary works without access for the visually impaired is too many."), *available at* http://www.copyright.gov/1201/2010/NTIA.pdf.

Fortunately, the Librarian of Congress overruled the Register and granted us the exemption.[22] In the 2012 review, we went back for a fourth time and successfully renewed the exemption with our colleagues from the American Council of the Blind.[23]

We were also joined by our colleagues in the deaf and hard of hearing community, including Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), Gallaudet University, and the Participatory Culture Foundation, who sought an exemption to develop advanced tools for making video programming accessible.[24] Unfortunately, the exemption was granted only in a limited form, precluding valuable research efforts that could have meaningfully advanced the state of video programming accessibility.[25]

For those keeping score, we've now been through four rulemaking proceedings spanning more than a decade. In a seemingly endless loop that calls to mind the dilemma of Bill Murray's character in the movie Groundhog Day, we, our colleagues, and our pro bono counsel have poured hundreds of hours of work into a lengthy bureaucratic process that requires us to document and re-document the accessibility of copyrighted works and argue and re-argue the rarely-disputed premise that making books and movies accessible to people with disabilities does not infringe or even remotely threaten the rights of copyright holders. In short, section 1201 has forced us to strain our limited resources simply to achieve the human and civil right to access digital copyrighted works on equal terms.

And yet, for all this work, we are scarcely further along than where we started more than a decade ago, as the exemptions we have achieved begin to fade below the horizon yet again. This fall, we face the prospect of a *fifth* trip to the Copyright Office to reaffirm our right to read and experience video programming on equal terms. We face the burden of making our case yet again, even in the wake of the declaration of the world in implementing the historic Marrakesh Treaty that access to books is a basic human right, the denial of which should not and cannot be tolerated by civilized countries in the twenty-first century.[26]

Even if we win yet again, our victory will be short-lived, as our exemption will expire again in three years. And the exemption will only provide limited relief, as it leaves unaffected the DMCA's trafficking ban, which prevents us from creating and distributing advanced tools and services to people with disabilities who don't have the ability to circumvent DRM to make works accessible on their own.

The shortcomings of this process are manifest. Even the Librarian of Congress has noted that:

> 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.[27]

We join the many other public interest organizations that have urged Congress to fix the problems with section 1201 of the DMCA by limiting violations of the circumvention prohibitions to cases where there is a nexus with actual copyright infringement—a result that Representative Zoe Lofgren's Unlocking Technology Act would accomplish.[28] This would bring to fruition the common sense proposition that efforts to make copyrighted works accessible to people with disabilities should not run aground simply because the works are protected with DRM.

In the meantime, we urge reform of the triennial process itself. At a bare minimum, we urge Congress to take action to relieve the burden of repeatedly seeking

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[22] 2010 Final Rule, 75 Fed. Reg. 43,838–39.

[23] *Joint Comments of American Council of the Blind and the American Foundation for the Blind,* Copyright Office Docket No. RM 2011–7, *available at* http://www.copyright.gov/1201/2011/initial/american_foundation_blind.pdf; *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies,* 77 Fed. Reg. 65,260, 65,262, 65,278 (Oct. 26, 2012) ("2012 Final Rule") (codified at 37 C.F.R. § 201.40), *available at* http://copyright.gov/fedreg/2012/77fr65260.pdf.

[24] *Comments of TDI,* et al., Copyright Office Docket No. RM 2011–7 (Dec. 1, 2011), *available at* http://www.copyright.gov/1201/2011/initial/IPR_TDI_gallaudetU.pdf.

[25] *See* 2012 Final Rule, 77 Fed. Reg. at 65,270–71, 65,278.

[26] *See generally* World Intellectual Property Association (WIPO), *Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled,* http://www.wipo.int/treaties/en/ip/marrakesh/.

[27] 2010 Final Rule, 75 Fed. Reg. 43,839.

[28] *See* H.R. 1892 113th Cong. (2013), *available at* https://beta.congress.gov/bill/113th-congress/house-bill/1892/text.

re-approval of uncontroversial exemptions like the one we must re-propose during each review.

Members of the Subcommittee, you can count the blind and visually impaired communities among the leading champions for the success and development of the copyright industries. At AFB, we believe that access to the social, cultural, economic, and participatory opportunities afforded by copyrighted books, movies, music, software, and more are profoundly important in enabling people with disabilities to access a democratic society on equal terms—particularly as those works migrate to digital distribution systems in our ever-advancing information age. However, we urge you to act swiftly and decisively to limit the negative impacts of section 1201 on the right of people with disabilities to access those works.

Mr. MARINO. You came in under the wire, Mr. Richert. I appreciate that.

Mr. Zuck, please?

TESTIMONY OF JONATHAN ZUCK,
PRESIDENT, ACT | THE APP ASSOCIATION

Mr. ZUCK. Thank you. I'll try to follow your good example.

Vice-Chairman Marino, Member Nadler and the Members of the Subcommittee, thank you for the opportunity to speak today about an important area of copyright law and its impact on the app industry. ACT, the App Association, represents over 5,000 app developers and information technology businesses who both create and license digital content.

The app industry is a success story. A story about a vibrant, innovative and growing industry that you should be proud to know is in every congressional district of the United States. In fact, we've become a little bit famous for our collector's edition player cards that give the details of a developer in each district.

The app industry is growing rapidly as mobile devices are wherever marketable innovation is taking place. Like most of you have already used a host of apps this morning to check email, weather, traffic, to book reservations and appointments, to access and revise documents in media, to Skype with a colleague and in my case use social media to announce that I was going to testifying before Congress this morning. So it isn't surprising to learn that after the launch of the first app store, just 6 years ago, apps have grown into a $68 billion industry in the United States employing more than 750,000 Americans. Industry experts expect revenues to grow to more than $140 billion by 2016.

The app industry as we know it today didn't exist when the DMCA became law in 1998. Software developers like me then did engage in the debate over proper balance between protecting content and not harming emerging and future innovations in technology. They understood the value of intellectual property to their ability to make profit. Still, their technological expertise made them wary of the potential impediments to innovation and abuses which many argued would be the result of the DMCA.

The courts have eased our concerns by consistently rejecting attempts to abuse the DMCA to block competition or legitimate research and reaffirm the flexibility of the law by regularly by adding new exemptions for things like cellphone unlocking and accessibility for the blind. Additionally, the near constant innovation in

content consumption, delivery and creation has suggested that the DMCA is having very little, if any, adverse impact on innovation.

Today, consumers have nearly endless legal options for obtaining and consuming music, movies, including new streaming solutions like Spotify, Hulu and iTunes—all things that DMCA skeptics thought might be impossible under the law. Because the DMCA is extremely technical and easy to misinterpret or misunderstand, and often debated by participants that haven't even read it, ACT published a white paper on the 15th anniversary of the law last year entitled, "Quick Guide to the DMCA: The Digital Millennium Copyright Act Basics."

While the guide refutes many of the criticisms against the DMCA, the takeaway is this: The explosive growth in technological innovations and content delivery options prove that the DMCA has created an environment in which these things are possible. In fact, the emergence of a curated app store that's seamlessly tied to the mobile operating system, like iOS and the Apple App Store, demonstrates how DRM and DMCA can create a virtuous cycle for consumers and application developers.

In the modern curated app store, the platform provides the most invisible DRM that provides great protection for developers and important benefits for consumers. Consumers are able to trust the apps in the store and benefit from the ability to instantly replace lost or corrupted apps with just a few clicks. The result is the developers make twice as much money on these types of stores and consumers have to deal with the small fraction of viruses and malware of operating systems that do not have a closely tied curated app store.

Being able to use technological protection measures to control access and copying is essential to the success of the industry. Yes, app piracy exists and the DMCA isn't perfect. No law is. But just because in 16 years, since the law was enacted, there have been a handful of cases brought under claim DMCA violations, we should not take our focus off the innumerable innovations of the last decade.

Let's take it out of the abstract into the concrete facts. There are over a million, and that's a million with six zeroes, apps that are available in the marketplace. There are thousands of app developers currently in the market and there are virtually no barriers to becoming and entrepreneur in this industry. There may be ways to improve the DMCA to ensure it can handle the next generation of technological advances, but we should proceed with caution for dismantling a series of compromises that have served the industry and consumers so well.

Thank you very much.

[The prepared statement of Mr. Zuck follows:]

Testimony

of

Jonathan Zuck
President
ACT | The App Association

before the

Committee on the Judiciary
The Subcommittee on Courts, Intellectual Property and the Internet

on

Chapter 12 of Title 17

September 17th, 2014

Chairman Coble, Ranking Member Nadler, and Members of the Subcommittee, thank you for the opportunity to speak today about an important area of copyright law and its impact on the app industry. Let me first say that we appreciate your continued leadership in the process of reviewing the effectiveness of the U.S. Copyright Act to protect intellectual property rights, encourage creativity and innovation, and provide consumers with legal access to content in the digital environment.

ACT | The App Association represents over 5,000 app companies and information technology firms creating and licensing digital content. ACT is widely recognized as the foremost authority on the intersection of government and the app economy. As the only organization focused on the needs of small business entrepreneurs from around the world, ACT advocates for an environment that inspires and rewards innovation while providing resources to help its members leverage their intellectual assets to raise capital, create jobs, and continue innovating.

The App Industry

This is a success story. A story about a vibrant, innovative, and growing industry that is in every congressional district in the United States.

The app industry is growing rapidly as mobile devices are where remarkable innovation is taking place. After the launch of the first app store just six years ago, apps have grown into a $68 billion industry and created over 750,000 U.S. jobs. Industry analysts expect revenues to grow to more than $140 billion by 2016.

The app ecosystem consists of a wide range of products and services, much like traditional copyright industries. These include a variety of content delivery options, security and monitoring services, tech support services, payment processing services, patents, licensing agreements, and diverse revenue models.

App Developers and the DMCA

The app industry as we know it today didn't exist when the Digital Millennium Copyright Act (DMCA) became law in 1998. At the time, software developers engaged in the debate over the proper balance between protecting content and not harming emerging and future innovations in technology. They understood the value of intellectual property to their ability to see a return on investment, still their technical expertise made them wary of the potential impediments to innovation and abuses which many argued would be the result of the DMCA. Despite some lingering concerns over the DMCA, software developers soon took advantage of opportunities to innovate in digital technologies, delivering content to consumers across the mobile ecosystem.

The DMCA is extremely technical and easily misinterpreted or misunderstood. Too often the law is debated without the participants having read the law or having any knowledge of what it does. And this impacts policy makers who are new to the issue, making it difficult to determine the facts versus the spin.

Realizing that there was a need to educate policy makers and the developer community about what the DMCA really does, ACT published a white paper on the 15th anniversary of the law last year entitled, "Quick Guide to the DMCA: The Digital Millennium Copyright Act Basics." It was time to dial down the rhetoric and focus the

debate back on the facts. The Quick Guide took out the legalese, provided context for why it was enacted, and explained how it works. It can arm policy makers with easy-to-understand facts about what the law actually says and its impact on innovation. And it shows developers they do not need to fear the DMCA but rather use it as an important consideration in their product development as both creators and users of content.

The Quick Guide broke down the two main sections of the DMCA: Section 1201 anti-circumvention rules and the online service provider liability provision. Focusing on section 1201, the Guide explained how the law provides copyright owners with the authority to prevent "circumvention" or breaking of technological measures or digital locks used to protect their rights under copyright law. App developers increasingly identify themselves as content creators as well as technological innovators. Seeing the value of being able to use security measures to protect access and use of their content has led to strong support for the DMCA amongst ACT members.

The Guide also refuted the main criticisms leveled at the DMCA since its passage with the overwhelming evidence of advances in technological innovation. Simply put, the worst fears of DMCA opponents did not materialize. While neither copyright owners nor tech and user groups were completely happy with the final language in the DMCA, it has proved to be flexible during the breathtaking digital revolutions of the past decade, which have brought us iTunes, smartphones, app stores, digital books and magazines, online access to art, YouTube, Hulu, and all sorts of other on-demand content.

Critics continue to claim that the DMCA "chills innovation," pointing to a handful of cases as proof. However, in each of these few cases, the courts have applied the facts and found that the DMCA either did not apply or was not violated. The courts have consistently and repeatedly rejected efforts to abuse the DMCA and new businesses and business models built around copyrighted content are flourishing.

DMCA opponents also argue that the DMCA gave too much control to creators claiming that content owners would and do limit access and raise prices. Again, products, services, and content offerings continue to grow exponentially while the costs to consumers continue to decline, and in many cases, are now free with the advent of ad-supported business models that are common in the app industry. There are thousands of apps available to consumers at price points of $0.99 or less.

But, lawmakers drafting the DMCA understood concerns about users having access to digital copyrighted works for legitimate uses, and specifically included a provision to ensure access for lawful purposes, like fair use. Every three years the Librarian of Congress, upon the recommendation of the Register of Copyrights, exempts certain types of works from the section 1201 rule against picking locks. And every three years the process has resulted in exemptions to the rule. While ACT has not participated in the process, we have observed that the procedure works. It is another example of the flexibility of the DMCA to adapt over time to meet the current needs of consumers and content owners.

ACT continues to use the Quick Guide to educate its members, the developer community, and policy makers about the DMCA. Focusing on facts, the Guide transforms the DMCA from a virtual boogeyman into a critical tool that is essential to the protection of content and continued innovation.

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Securing Digital Content is Essential to Mobile App Industry

As much as I would like to report that piracy no longer exists, software developers still face significant loss of time and money from those who would rather steal than pay $1.99 for software that changes their lives. Worse still, the problems from pirated apps are not limited to obvious monetary damages. We now see more sophisticated thieves that steal the content and functionality of an app, and then submit it to a legitimate store under a different name – almost like fake brake pads that come in factory boxes. Additionally, these pirated apps are often vectors for malware and identity theft. Therefore we continue to need the tools provided by the DMCA as well as strong cooperation within industry between device manufacturers, platforms, and publishers.

It's worth remembering that copy protection for software at the time of the DMCA's passage was often an arduous, and individual, activity. Each publisher would create, manage, and update a copyright protection scheme, and smaller independent publishers would buy "kits" that would install on top of their software to offer protection. In both cases, copy protection was merely an arms race – with constant updates a reality that cost time, money, and focus.

For example, in 2005, one independent game developer in upstate New York, Ambrosia Software, reported that just to keep up with hacked codes, they had two employees that would start every morning, and spend more than two hours each day, merely cataloging all the codes on the web, and then one full time employee was dedicated to managing the legitimate owners so that once their stolen code was deactivated, they could get a new, working code.

Worse still, these copy protection methods would often lead to a bad user experience that required keeping a folder full of scraps of paper with code numbers and "authentication certificates" just to re-install your software. For developers and publishers, it meant customer support via phone and email available 24-7 if possible, and five days a week at minimum.

With the advent of the modern app store, we entered into an era where the app platforms now handle the bulk of the work, making it much easier to keep paying customers happy and keep thieves away.

How We Work with Platforms Today – and What are the Pitfalls

The modern app store revolutionized how developers handle piracy. Now stores would take care of the purchase, and validate that the right person got the right software. So long as the device was able to maintain its own internal security, traditional piracy became much harder.

As the app industry grew, we developers worked hard to find new ways to provide features that customers wanted, but only paid for when they were needed. This resulted in significant growth of "freemium" apps. These are applications that can be downloaded for free, but certain features or types of use are only available for purchase via an in-app purchase. Therefore, while you may not restrict the initial download, you must use anti-cracking techniques to protect the paid feature set. For mobile platforms like Apple's iOS, Microsoft Store, and Amazon's Kindle, developers of paid and freemium apps rely on the concept of the receipt.

The receipt is the foundation upon which developers build business model enforcement logic directly into the app, as well as into servers that are providing the content to users. Moreover, this digital receipt is a fairly similar analogy to the paper receipt you get from a store when you purchase a tangible good: It verifies the product you purchased, the method of purchase, if you used a credit card, who purchased it, and when the purchase happened. And just like Costco asks to see receipts as customers walk out, it also is a method to prevent theft.

For today's mobile and on-line platforms, those receipts are protected by digital rights protection mechanisms and are the trusted and verifiable record of purchase.

Unfortunately, easy-to-use digital rights management techniques like receipt validation haven't killed off piracy entirely. We still see sites and sources like pp25 and ihacksrepo on Cydia for iOS; aptoide and BlackMarketAlpha for Android; and the Modembreak hack for Windows Surface. And nearly all of these rely on breaking the rights protection built into the device—often called "rooting" or "jailbreaking."

In most cases these sites give users access to pirated software, but they also do something far worse—they flood the ecosystem with malware.

Copycat Apps and Malware – The Next Threat for Developers

Traditionally, we think of piracy as an end user getting ahold of software they haven't paid for and using it. Today, we see a rising form of piracy where a developer, nearly always overseas, steals the content and functionality of a legitimate product and then attempts to put it in the store under a new name—even charging users for the app!

In one recent example, an ACT member had a children's app in the GooglePlay app store for sale at $0.99. This fun kids' app, Zoo Train, is full of colorful animal shapes and fun animation for an audience of young children. During a search for the product, the developers found another app in the GooglePlay store, with their same name, using their artwork, but from a different publisher. This app was free in the store, and came up when you searched for the Zoo Train app.

Why would someone do something like offer a free version in the store with no clear upside? Well, this particular act of piracy was a two-front attack. To start with, the app didn't really work at all. Instead of working properly with puzzles and spelling lessons, it showed advertisements to earn bogus ad revenue, and then gained permission to take control of the user's device—including access to the phone dialer, the address book, and the network stack, and then set itself so it could run in the background. In short, it was set up as a malware "stub" that does nothing right now, but can be activated with an update and a command.

Unfortunately it took nearly a year for Zoo Train to get that malware app off the GooglePlay store. And they aren't alone. RiskIQ, an online security services company, estimated that there were more than 42,000 apps in Google's store containing spyware and information-stealing Trojan programs by 2013[1].

[1] http://www.businesswire.com/news/home/20140219005470/en/RiskIQ-Reports-Malicious-Mobile-Apps-Google-Play#.VBZ6UEsrhg1

Another ACT member reported 10,000 active, registered users on a discussion board about his app in a country where he had only seen two actual downloads.

We have even had reports of free, ad-supported apps being pirated. In these cases, the content and the functionality is stolen, with another ad network or payee slotted in underneath the stolen content. This technique shows that even giving software away doesn't defeat piracy.

What's worse about these copycat apps is that the user doesn't know. If the pirated version is downloaded from a seemingly-legitimate store, the user may be fooled into thinking he has paid the legitimate developer, and even call up the actual app publisher's customer service when it doesn't work right.

While this may sound like a laundry list of doom and gloom, I must report that overall developers and software publishers are finding the world of apps to be far better on piracy than the past. But the persistent problems created by piracy continue to nip at our heels.

Conclusion

Section 1201 of the DMCA created the foundation for protecting copyrighted works in the digital world. It's the result of a complex series of negotiations and compromises between policymakers, copyright interests, tech firms, network operators, and nonprofits. The final law is not without flaws, but it has proven effective and flexible enough to provide for and deal with continued innovation in the tech sector. The reality is that entrepreneurs have and will continue to find a way to build legitimate businesses without running afoul of the law. There may be opportunities to continue to improve the law to ensure it's ready for the next generation of technological advances, but we should be wary of dismantling a series of compromises that has served innovation and creativity well for the past 16 years.

Mr. MARINO. And Mr. Zuck, you too came in under the wire. Thank you.

Mr. Genetski?

TESTIMONY OF CHRISTIAN GENETSKI, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, ENTERTAINMENT SOFTWARE ASSOCIATION

Mr. GENETSKI. Vice-Chairman Marino and honorable Members of the Subcommittee, my name is Christian Genetski and I'm the General Counsel of the Entertainment Software Association, or ESA.

ESA represents the interests of the country's leading video game publishers and console manufacturers—companies whose artists and developers produce a wide array of highly expressive, interactive copyrighted works played by hundreds of millions of gamers worldwide. Last year alone, our industry contributed more than $21 billion to the U.S. economy.

As this Committee examines how Section 1201 of the DMCA is operating in today's digital era, I appreciate the opportunity to share how ESA members' use of TPMs, or technological protection measures, and the safeguards afforded under Section 1201 bear out both the foresight of this Committee in recognizing how TPMs could spur innovation and demonstrate the structure of the DMCA is fundamentally sound and largely working as intended.

Under the leadership of Chairman Coble, Ranking Member Conyers and others, this Committee made clear that 1201's anti-circumvention prohibitions were designed to incentivize copyright owners' use of TPMs in service of two distinct but related goals: One, to prevent online piracy; and two, to promote broader dissemination of content to legitimate users. For our industry these incentives are working.

The evolution of the video game industry over the last 15-plus years reflects a DMCA success story for game platforms, game publishers and, most importantly, gamers. Although piracy of video game content and attacks on the integrity of online games a significant concern, there is no question that TPMs and the DMCA have played a pivotal role in reducing their scope.

But TPMs are about much more than preventing piracy. Our industry understands that in the long run, one of the most effective ways to reduce piracy is to offer consumers a compelling experience that unauthorized versions simply can't compete with. Critics reflexively presume that TPMs necessarily reduce consumer choice. We disagree. In fact, the underappreciated role of TPMs is how they help game publishers expand consumer choice by exponentially growing the universe of authorized uses across multiple platforms with increased flexibility and at a wider range of price points.

To name just a few examples TPMs in the video game industry have spurred and explosion of free-to-play game offerings available on mobile phones, tablets, and online; they've transformed the video game console from a living room device shared by families to a robust online hub that connects millions of people around the world in online play; and they've enabled the growth of brand new digital gaming services that allow users to acquire and store digital

games at lower prices, receive free games, game enhancements and trial periods, and allow them to play the same game across multiple platforms and devices in the way that they want.

All of these examples illustrate the game industry's consumer-focused approach, and every one of them relies heavily on TPMs. Accepting that no technology is impervious to attack; the DMCA has been a critical tool to establishing both a baseline respect for the integrity of TPMs that protect copyrighted works and the deterrent to attempts to thwart them.

Against this backdrop of success, we believe it's critical that any consideration of Section 1201 reform to address outlier cases or perceived unintended consequences must not undermine all these accumulated benefits. Some proposal that attempt to enable circumvention for only nominally non-infringing uses, for example, would undoubtedly have the effect of emboldening those how seek to pirate game content online. This concern is not theoretical. The Copyright Office recognized this fact during the last triennial rulemaking in rejecting a proposed exemption that would have allowed circumventing video game console TPMs for non-infringing uses because the evidence showed that the very same steps required to hack a console for those non-infringing uses were, in fact, used overwhelmingly in support of copyright infringement.

No law achieves perfect results. To the extent there are specific instances where the DMCA may be restraining a legitimate fair use or at least creating that perception, we believe that the safety valve of the rulemaking process is best suited to accommodate them. We saw the process work very well in our case in the last rulemaking, but we recognize that it may not have worked as smoothly in every instance.

Targeted efforts to improve the efficacy and the efficiency of that process merit consideration and we're open to exploring that discussion with you.

Thank you again for the opportunity to testify today. The decade and a half since the enactment of the DMCA has been, by any measure, one of unrivaled innovation. Consumers today have access to higher quality and more varied content as well as a greater voice and wider range of choices in how to experience that content than at any other time in history.

We look forward to working with this Subcommittee to ensure that the DMCA continues to fulfill its intended objectives. Thank you.

[The prepared statement of Mr. Genetski follows:]

Testimony of

Christian Genetski
Senior Vice-President and General Counsel
Entertainment Software Association

Before the
Subcommittee on Courts, Intellectual Property, and the Internet
Committee on the Judiciary
United States House of Representatives

Hearing on "Chapter 12 of Title 17"

September 17, 2014

Chairman Coble and Ranking Member Nadler, Chairman Goodlatte and Ranking Member Conyers, and honorable Members of the Subcommittee, my name is Christian Genetski, and I am Senior Vice-President and General Counsel of the Entertainment Software Association ("ESA"). ESA represents the interests of most of the country's leading video game publishers and console manufacturers. These skilled artists, authors, and developers produce a wide array of highly expressive, interactive copyrighted works, which include audiovisual materials, musical compositions, literary works, artistic works and software. Last year alone, the video game industry contributed more than $21 billion to the U.S. economy and entertained hundreds of millions of U.S. consumers throughout the country. These gamers are a diverse group; the average gamer is 31 years old, and 48 percent of all gamers are women.

As this Committee examines how Section 1201 of the Digital Millennium Copyright Act ("DMCA") is operating in today's digital era, I appreciate the opportunity to share with you today how ESA's members use technological protection measures ("TPMs") and the protections afforded under Section 1201 not only to protect their copyrighted works but also to foster the distribution of their game content in new and exciting ways across a variety of different platforms and at a wide range of price points.

Under the leadership of Chairman Coble, Ranking Member Conyers and others, this Committee crafted Section 1201 to meet the primary challenge presented by the widespread consumer adoption of high-speed Internet broadband—namely the unauthorized "rapid dissemination of perfect copies… [by] pirates who aim to destroy the value of American intellectual property."[1] Although piracy remains a significant concern for the industry, TPMs

[1] H.R. REP. NO. 105-551, pt. 1, at 9 (1998).

have proved critical to frustrating attempts to steal game content. Indeed, TPMs have enabled game publishers to diminish piracy by preventing both the unauthorized copying of copyrighted games as well as the playback of pirated games on game consoles. Perhaps even more importantly, TPMs have been a key tool for game publishers as they endeavor to "compete with free" by ensuring that lawfully obtained games offer a compelling user experience that cannot be replicated with unauthorized copies.

We believe that the structure of the DMCA—which carefully balances prohibitions with exceptions and includes the "safety valve" of the triennial review process—is fundamentally sound. And, as we will discuss today, the results of the last 15 plus years both prove the prescience of this Committee in recognizing how TPMs spur innovation and also demonstrate that Section 1201 is working as intended.

Of course, as with any law, overzealous litigants may push its boundaries or misperceptions may inadvertently suppress some legitimate conduct. The DMCA has not been immune to these phenomena. Such outliers invariably draw attention away from the myriad examples of the law working well to serve its intended purpose. Accordingly, any discussion about how perceived misuses might be addressed must also take into account the much larger public benefit Section 1201 has had in encouraging the launch of new business models to distribute copyrighted content and the vast expansion of the range of content offerings and consumer access to copyrighted works.

Technological protection measures have allowed the video game industry to move beyond packaged goods and embrace new digital technologies and distribution models. As a result, purchases of digital content—including full games, add-on content, mobile apps, subscriptions, and social networking games—accounted for 53 percent of game sales in 2013.

Forty-four percent of gamers play games on their smartphones, and 33 percent play games on other wireless devices, such as tablets.

Consistent with this trend, my testimony today will focus on three points. *First*, I will review the twin goals of Section 1201 and how promoting the use of TPMs furthers these goals. *Second*, I will summarize how TPMs have played a critical role in achieving both of these objectives in the video game industry, as evidenced by the dynamic growth of online game distribution models. *Third*, I will discuss how any consideration of reforming the DMCA to address perceived abuses or unintended consequences should be mindful not to undermine the wave of innovation benefitting both consumers and content creators that TPMs have enabled.

I. THE DMCA HAS TWIN OBJECTIVES OF PREVENTING PIRACY AND PROMOTING BROADER DISSEMINATION OF COPYRIGHTED WORKS.

The DMCA was enacted in order to bring U.S. copyright laws in line with our obligations under certain international treaties.[2] It was intensely negotiated, and the law is aimed at addressing copyright enforcement in a digital age by both promoting the creation and protection of highly expressive and valuable digital works while also providing strong incentives for copyright owners to make these digital works available to the public.

This Committee explained that Section 1201 of the DMCA sought to encourage copyright owners' use of technological protection measures in service of two distinct, but related, goals: (1) to "prevent piracy and other economically harmful unauthorized uses of copyrighted materials" and (2) to "support new ways of disseminating copyrighted materials to users[,] . . . safeguard the availability of legitimate uses of those materials by individuals [and] . .

[2] World Intellectual Property Organization, Copyright Treaty, Dec. 20, 1996; World Intellectual Property Organization, Performances and Phonograms Treaty, (Dec. 20, 1996).

. make more works widely available, and the process of obtaining permissions easier."[3] As a result, the DMCA not only encourages the creation of new digital works by providing authors another means of protecting against copyright infringement, but it also promotes the development of new and innovative business models that encourage the distribution of copyrighted works to the public.

To promote these twin goals, the DMCA prohibits trafficking in tools and technologies primarily designed, used or marketed for either of two distinct purposes, each of which threaten the value of the underlying copyrighted works that TPMs seek to protect. These purposes correspond to the two goals the DMCA is intended to promote. First, the prohibition against trafficking in tools and technologies that circumvent TPMs that *protect a copyright owner's exclusive rights* under the Copyright Act[4] reinforces those traditional rights by granting authors an additional cause of action against those who traffic in tools or technologies that facilitate infringement. Stated simply, one of the distinct purposes of the DMCA is to deter circumvention that facilitates piracy.

By contrast, the prohibition against trafficking in tools or technologies designed to circumvent TPMs that control *access* to a protected work[5] has the distinct, and equally important, purpose of making circumvention unlawful in certain instances, without requiring a

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[3] COMMITTEE ON THE JUDICIARY, HOUSE OF REPRESENTATIVES, 105TH CONG., SECTION-BY-SECTION ANALYSIS OF H.R. 2281 AS PASSED BY THE UNITED STATES HOUSE OF REPRESENTATIVES ON AUGUST 3, 1998, at 6 (Comm. Print 1998) [hereinafter "House Manager's Report"]; *see also* H.R. REP. NO. 105-551, pt. 1, at 10 ("When copyrighted material is adequately protected in the digital environment, a plethora of works will be distributed and performed over the Internet.").

[4] 17 U.S.C. §1201(b)(1).

[5] Section 1201(a)(1), the companion provision to 1201(a)(2), prohibits the *act* of circumventing a TPM that controls access to a copyrighted work. There is no companion "act" provision to 1201(b)(1) because the act of infringing is already unlawful. *See* S. REP. NO. 105-90, at 11.

link to infringement, because Congress recognized and the Courts have affirmed that in the online environment, allowing unauthorized access would undermine the value of copyrighted works and the incentive for the copyright owner to make them more widely available.[6] For example, circumvention of TPMs restricting access to content on an online streaming service would violate the *access* prohibition, irrespective of whether that circumvention enabled the unauthorized copying of that content, or merely the viewing of it.

Together, these prohibitions on circumvention seek to incentivize copyright owners' use of TPMs both to prevent infringement and to expand the universe of legitimate access to their works.

. THE DMCA'S ANTI-CIRCUMVENTION PROVISIONS HAVE SERVED THE STATUTE'S INTENDED PURPOSES WELL.

The evolution of the video game industry over the last 15 plus years reflects a DMCA success story for game platforms, game publishers and, most importantly, the hundreds of millions of U.S. consumers who are entertained by video games each year. Since the DMCA was enacted in 1998, ESA's members have continually deployed TPMs in pursuit of both of the DMCA's mutually-reinforcing objectives. Although piracy of video game content and attacks on the integrity of online games remain a significant concern for the industry, there is no question that TPMs have played a pivotal role in reducing piracy, particularly on home console platforms. The more dramatic impact, however, has undoubtedly been the industry's evolution from offering only packaged goods to embracing digital technologies to meet consumer demand

[6] *See* S. REP. NO. 105-90, at 8. *See also MDY Industries, LLC v Blizzard Entertainment, Inc.*, 629 F.3d 928, 944 (9th Cir. 2011).

for experiencing video game content across multiple platforms, with increased flexibility, and at a greater range of price points.

Much of the debate about TPMs has focused on their role in preventing piracy. Indeed, in our industry's experience the use of TPMs, coupled with the recognition that circumvention is unlawful, has impacted piracy rates. One need only look at the contrast in piracy rates between personal computer ("PC") games, which are played on a platform that does not employ its own TPMs, and the versions played on game consoles that rely on TPMs to prevent the play of infringing copies. In connection with an unsuccessful attempt to seek an exemption for hacking video game consoles during the most recent 1201 triennial rulemaking, one console game manufacturer described in its comments how the PC game market has been decimated because widespread piracy had diminished publishers' incentives to continue developing games for the PC platform.[7] Indeed, today the PC game market consists primarily of online multi-player games, which rely on server-based TPMs, or alternate PC versions of games whose production is driven by the console versions of the game. Game piracy rates further underscore the point. Of the top 30 most frequently downloaded infringing games on a popular torrent, 29 are PC games, and over 80 percent of infringing games detected on peer-to-peer networks are PC versions.

But TPMs are about much more than preventing piracy. Indeed, our industry understands that in the long run one of the most effective ways to reduce piracy is to offer consumers a more compelling experience that pirated versions cannot match. Critics reflexively presume that TPMs hinder, rather than advance, that cause, and that any restriction on access to copyrighted

[7] Comments of Sony Computer Entertainment America LLC in Opposition To Proposed Class #3, *In the Matter of Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, Docket No. RM 2011-07, at 47 (Feb. 10, 2012), *available at* http://copyright.gov/1201/2012/comments/Jeffrey_P._Cunard.pdf.

works necessarily reduces consumer choice. We disagree. In fact, the underappreciated role of TPMs is how they help game publishers offer more compelling experiences that consumers desire through a proliferation of innovative content and services.

The record in our industry demonstrates that the ability to use TPMs has in fact greatly *expanded* consumer choice by exponentially growing the universe of "authorized uses." By way of example, TPMs have:

- spurred an explosion of free-to-play game offerings for web browsers, mobile phones, and tablet computers where consumers can play free versions of the game and choose whether to pay to enhance the game experience or unlock additional content or features;

- transformed the major video game consoles into robust online gaming networks that bring together millions of players worldwide each day, and made it possible for console makers to explore creative new services like (i) Sony Computer Entertainment America's "PlayStation Now" service, which allows gamers to instantly stream a wide variety of games, play them across a variety of devices, and store their game progress in the cloud; (ii) Nintendo's Virtual Console, which allows gamers to download legacy titles released for prior generations of Nintendo game consoles and handhelds; and (iii) Microsoft's partnership with Electronic Arts on "EA Access," a service that allows consumers to access some of EA's most popular games online through Microsoft's Xbox One platform for just $4.99 a month;

- encouraged the development of Massively Multiplayer Online Role Playing Games ("MMORPGs") that bring together millions of players into a persistent online universe for which content is updated with periodic expansion packs, such as Activision Blizzard's *World of Warcraft*, which is now in its tenth year and is the most popular MMORPG in history;

- enabled the growth of online stores and digital gaming services like EA's Origin and Valve's Steam, which allow users to acquire digital versions of games at lower prices, manage their entire digital library of games, receive free games and game enhancements, and access games across multiple platforms and devices.

All of these examples illustrate the game industry's consumer-focused approach, and each relies heavily on TPMs. Pursuing these initiatives is sound business practice, irrespective of the scope of copyright. But the DMCA plays an important role nevertheless, because having the rule of law backstopping these technologies sets the expectation for normative behavior. No

technology is impervious to attack. The DMCA has succeeded, however, in establishing both a baseline respect for the integrity of TPMs that protect copyright works and a deterrent to attempts to thwart them.

Although a few perceived "failures" of the DMCA tend to garner attention, we believe it is critical to step back and examine the big picture. The decade and a half since the enactment of the DMCA has been, by any measure, one of unrivaled innovation that bring us to a point where consumers have access to higher quality and more varied content, as well as a greater voice and wider range of choices in how to experience that content, than at any other time in history.

. ANY CONSIDERATION OF SECTION 1201 REFORM TO ADDRESS OUTLIER CASES SHOULD TAKE CARE NOT TO UNDERMINE THE ACT'S GOALS OF PREVENTING PIRACY AND PROMOTING INNOVATIVE DISTRIBUTION OF CONTENT.

We appreciate concerns that the DMCA's anti-hacking provisions have been occasionally used for purposes that are inconsistent with the intended objectives of the statute. For example, aggressive litigants who seek to thwart competition by pursuing a Section 1201 claim based on the presence of an insignificant amount of copyrighted code in a product whose "digital lock" actually seeks to preclude a competitive activity as opposed to protect the value of a copyrighted work, do a disservice to the DMCA and to the core copyright interests it seeks to protect. We are wary, however, of reform proposals that provide too much "solution" in a manner which risks undermining all of the accumulated benefits that robust TPMs enable.

For example, some have proposed weakening the DMCA by allowing TPMs to be hacked unless it can be proved that the hacker's primary purpose or intent is to engage in or facilitate copyright infringement. Although well-intended, these proposals would be ineffective in preventing the majority of unsubstantiated cases, while at the same time might preclude legitimate claims that are currently available and square with the DMCA's purpose of protecting

copyrighted works. First, they will do little to accomplish their stated purpose about overreaching in areas where core copyright interests are not at stake. Those who perceive a business advantage from suing a competitor will no doubt continue to pursue those claims in some form regardless of whether there is clear evidence of intent. Second, the limitation is under-inclusive and would have the unintended consequence of frustrating legitimate claims. This result would greatly undermine the substantial benefits for content creators and consumers that the DMCA has promoted in industries, like ours, in which copyright is its lifeblood.

Indeed, both the content protection and expanded dissemination goals of the DMCA would be adversely impacted by limiting violations strictly to acts of infringement. First, even though these proposals attempt to encourage only "non-infringing uses," their real-world, practical effect instead would be to embolden and encourage those who seek to pirate game content online. Indeed, the Copyright Office recognized this fact during the last triennial rulemaking in rejecting a proposed exemption to allow circumventing game console TPMs for "non-infringing uses only." The record in that proceeding made clear that:

- The steps required to hack a video game for non-infringing uses are the *very same* steps that an individual must take to install and play pirated content.
- Once a video game console is hacked, regardless of the purported purpose or intent of the hacker, *any* content, including pirated games and movies, can be played on that platform, and the hacker also can use the console to make infringing copies of copyrighted games, movies, and television programs and to distribute these unlawful copies online to a large audience.
- The hacking methods and tools that would be permitted to allow circumvention for non-infringing uses are in fact used *overwhelmingly* in the video game context for copyright infringement.

- Infringers routinely attempt to mask their true motives and intentions. These hackers know to market or disclaim their tools and activities as "non-infringing" or "fair use," even when the hacking or trafficking is for piracy.[8]

Moreover, while addressing copyright infringement is *one* important objective of Section 1201, it is not its *only* objective. This Committee also understood that a prohibition on the hacking of technological protection measures controlling *access* to protected works (even if the hacking does not result in any copyright infringement) was necessary in order to encourage innovation in the online distribution of copyrighted works. Nearly all of the platform and distribution advances in the video game industry discussed previously in my testimony rely on TPMs that protect *access* to copyrighted game content, most typically content stored in the cloud. This is the very type of content, and the precise type of innovative distribution of content, that Congress sought to protect in the DMCA. An all-purpose carve-out for "non-infringing" access would effectively remove such protection from the DMCA's purview.[9]

Given the successes the core precepts of the DMCA have fostered, we believe the best area of focus is the number of checks on DMCA abuse that currently exist and are designed to protect against misuse of the law. First, the courts can address frivolous or anticompetitive DMCA claims just as they can similar claims brought pursuant to other laws. Second, the

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[8] *See* 77 Fed. Reg. 65260, 65274 (Oct. 26, 2012) ("[O]n the significant question of market harm, the Register concluded that opponents had provided compelling evidence that circumvention of access controls to permit interoperability of video game consoles—regardless of purpose—had the effect of diminishing the value of, and impairing the market for, the affected code, because the compromised code could no longer serve as a secure platform for the development and distribution of legitimate content. The Register noted that instead of countering this evidence with a factual showing to prove opponents wrong, EFF merely asserted that its proposal would not permit infringing uses. The Register did not believe that this response satisfied proponents' obligation to address the ''real-world impact'' of their proposed exemption.").

[9] *MDY Industries, LLC v Blizzard Entertainment, Inc.*, 629 F.3d 928, 944 (9th Cir. 2011) (holding that Section 1201(a)(2), but not 1201(b)(1), is violated by hacking the technological protection measures protecting against unauthorized access to online game servers).

market is a powerful force in preventing use of TPMs in a manner that consumers dislike. Video gamers in particular are passionate consumers who are closely attuned to how ESA's members use TPMs in their digital products and service offerings. Gamers expect that TPMs will be seamlessly integrated and consistent with their expectations for use of the content. They speak loudly when a TPM is inconsistent with their expectations, and our industry is responsive to these market demands.

And, of course, the DMCA's current structure is designed to accommodate specific instances where the law may be restraining a legitimate fair use, or at least creating the perception of doing so. Section 1201 already contains a number of statutory exemptions that are designed to permit circumvention of technological protection measures in specific circumstances where Congress has determined that enabling access is necessary to promote the public interest. For example, circumstances in which a person is permitted to circumvent a technological protection measure in order to reverse engineer a computer program to achieve interoperability[10] and certain acts of encryption research[11] are exempt.

The other important "safety valve" is the triennial rulemaking process. Every three years, the Librarian of Congress, based on the recommendation of the Copyright Office, has the opportunity to identify additional areas where—whether due to perceived abuses, evolving societal needs, new technologies, or other unforeseen circumstances—additional exceptions are warranted to enable legitimate non-infringing uses. This rulemaking process, which occurs at regular intervals and is targeted at specific, current uses, provides a far better mechanism to evaluate the need for additional exceptions than revisiting the fundamental goals and baselines of

[10] 17 U.S.C. § 1201(f).
[11] *Id.* § 1201(g).

Section 1201 liability. We believe that the triennial rulemaking process has proven that it can work well. For instance, ESA participated in the last rulemaking and, in the context of the particular exemption it opposed, found the process fair and reasonable, and the outcome based on a careful examination of a thorough evidentiary record. We recognize, however, perceptions that the process may not worked as smoothly in every instance. As we now have the accumulated experience of several rulemakings, an examination of what has worked well as well as any perceived flaws makes sense. Targeted efforts to improve the efficacy and efficiency of the triennial rulemaking process may well be worth consideration, and ESA is open to exploring that discussion with you.

IV. CONCLUSION

Thank you again for the opportunity to testify today. ESA's members, like other copyright owners, depend on technological protection measures not only as an effective means to respond to copyright infringement in a digital world, but also to facilitate new and exciting ways to make their highly-valuable and expressive copyrighted works available online. In this regard, ESA's members are realizing precisely what this Committee envisioned when it passed the forward-looking provisions of the DMCA.

We look forward to working with the Subcommittee to further the DMCA's two objectives—combating piracy and promoting innovation—while also ensuring that the public continues to enjoy expanding access to copyrighted works.

Mr. MARINO. Thank you, Mr. Genetski.

Ms. McSherry, you are recognized for 5 minutes.

TESTIMONY OF CORYNNE McSHERRY, INTELLECTUAL PROPERTY DIRECTOR, ELECTRONIC FRONTIER FOUNDATION

Ms. MCSHERRY. Thank you.

Mr. Vice-Chairman and Members of the Committee, thank you for the opportunity to be here today.

The Electronic Frontier Foundation is a nonprofit organization dedicated to protecting consumer interests, innovation and free expression in the digital world. As part of that work, we've been involved in most of the leading court cases involving Section 1201. We regularly counsel security researchers, innovators and ordinary internet users and remix artists regarding Section 1201. We've also been involved in the Section 1201 exemption process almost from the beginning.

Based on this experience, we've had a pretty good opportunity to assess the real price of Section 1201, and in our view that price is too high. Section 1201 was supposed to help deter copyright infringement, but over and over we've seen this law used to thwart activities that are not just legal but that have nothing to do with copyright.

Last year, Americans got a sense of the problem when they discovered, to their surprise, that merely unlocking their phones to go to a different carrier might be illegal. They were equally surprised to discover that the DMCA gives the Librarian of Congress veto power over normal uses of their personal devices, and they were not happy. Thousands spoke out, the White House weighed in, and Congress passed a law temporarily restoring the ability to consumers to unlock their phones. Now, we're grateful that Congress passed that law, but we should all be profoundly disturbed that it was necessary to do so in the first place. Something is broken here.

See just how broken it is. Let me focus just on a few practical examples. The first involves a discovery of a serious security flaw and copyright, sorry, copy protection on millions of CDs; one that could allow malicious attackers to essentially take over a user's computer. It affected 500,000 networks including government and military networks. Now researchers at Princeton University knew about the flaw but they hesitated for weeks to share that knowledge for fear that doing so might violate the DMCA. And they had a good reason for that fear, because they had already faced Section 1201 threats for simply talking about their work.

Now in recent years more and more Americans are becoming aware of how important it is to find and fix security flaws. When our leading researchers can't do their jobs, we are all at risk. So that's one problem. Here is another.

The DMCA has been used to block competition and innovation, and not just printer cartridges and garage door openers but also video game console accessories, computer maintenance services, and so on. It takes legitimate competition out of the marketplace and into the courtroom at the expense of consumers and taxpayers. It's even been used to threaten hobbyists who simply want to make their devices and games work better. We're a Nation of tinkerers,

inventors and makers. Section 1201 inhibits that fundamental freedom to tinker and to innovate.

Here's yet another problem. From phones to cars to refrigerators to farm equipment, software is helping our stuff work better and smarter but, if that software is protected by TPMs, repair and recycling of those goods may require circumvention. Putting repair and recycling at risk is bad for consumers and it's bad for the environment. Ironically enough, 1201 is even a problem for the very people who it was supposed to help the most: Creative artists. Once they understand how 1201 works, the artists I work with are appalled. They understand that they need to make fair uses of existing creative works and that Section 1201 often stands in their way.

Now of course there is an exemption process, but it's just not an adequate safety valve. It takes tremendous resources, many hours of work, legal and technological expertise. And even if you manage to win an exemption, you have to start all over again just a few years later.

And finally, I know that the Copyright Office and the Librarian of Congress are staffed by dedicated and smart people but it doesn't make sense to task a small group of overburdened copyright lawyers and librarians with making decisions that can shape the future of technology markets.

Here's the biggest problem of all: The costs aren't outweighed by the benefits. Individuals and companies that engage in large-scale copyright infringement, the so-called pirates, are not deterred by Section 1201. After all, chances are they're already on the hook for substantial copyright damages. There are other penalties that already exist.

Something is broken and we need your help to fix it. We believe the best outcome from this process will be for Congress to overturn Section 1201 altogether. Short of that, the law should be limited to the situations it was supposed to target: circumvention that's actually intended to assist copyright infringement. Not only would this bring the law back in line with its real purpose but it would dramatically reduce the costs of the triennial rulemaking process, and one strong step in the right direction is the Unlocking Technology Act, introduced last year by Representative Zoe Lofgren and a bipartisan group of sponsors.

Thank you for your attention and I look forward to your questions.

[The prepared statement of Ms. McSherry follows:]*

*Additional material submitted by this witness in the form of a document entitled "Unintended Consequences: Sixteen Years under the DMCA" is not reprinted in this hearing record but is on file with the Subcommittee and can be accessed at https://www.eff.org/files/2014/09/16/unintendedconsequences2014.pdf.

House Committee on the Judiciary Subcommittee on Courts, Intellectual Property and the Internet

Hearing:
"Chapter 12 of Title 17"

Testimony of Corynne McSherry
Intellectual Property Director
Electronic Frontier Foundation

September 17, 2014

Chairman Goodlatte, Ranking Member Conyers; Chairman Coble, Ranking Member Nadler, and Members of the Committee, thank you for the opportunity to speak today on Section 1201 of the Digital Millennium Copyright Act. My name is Corynne McSherry, and I am Intellectual Property Director for the Electronic Frontier Foundation, a nonprofit civil liberties organization dedicated to protecting consumer interests, innovation, and free expression in the digital world.

For almost 25 years, EFF has represented the interests of technology users in both court cases and in broader policy debates regarding the application of law in the digital age, including the "anti-circumvention" provisions of the Digital Millennium Copyright Act. As counsel and as friends of the court, we have been involved in most of the leading court cases interpreting Section 1201. Today, we regularly counsel security researchers, innovators and ordinary Internet users regarding the pitfalls of Section 1201 as part of our Coders' Right Project. We also have extensive experience with the 1201 exemption process, having sought and obtain a variety of exemptions (and failed to obtain others).

Based on this experience, we have seen that Section 1201 has not been used as Congress envisioned. Indeed, the past year has seen an object lesson in the profound flaws of Section 1201, as consumers discovered, to their dismay, that merely unlocking their phones might violate the DMCA. They also discovered that the DMCA puts an unelected official in charge of regulating their personal devices. And they were not happy. Thousands spoke out, the White House weighed in, and Congress passed a law temporarily restoring the ability of consumers to unlock their phones.

We are grateful that Congress passed that law, but we should all be profoundly disturbed that it was necessary to do in the first place.

Section 1201 of the Copyright Act was ostensibly intended to stop copyright infringers from defeating anti-piracy protections added to copyrighted works. In practice, however, the anti-circumvention provisions have been used to stifle a wide array of legitimate activities. We have collected many examples of such misuses in our whitepaper, *Unintended Consequences: 16 Years Under the DMCA*.[1] I am submitting that document in addition to this statement for the Committee's reference, but I will offer here just a few examples.

1. Section 1201 Impedes Competition and Innovation.

Traditionally, once a consumer has purchased a product, she has been free to use it however she sees fit. Legitimate consumers of electronic goods have been free to customize their products to better fit their needs; just as car enthusiasts might wish to soup up their engines, consumers may wish to write their own software for their robot pet, install a larger hard drive on their computer, etc. Consumers have also been free to

[1] *See* https://www.eff.org/pages/unintended-consequences

choose competitive add-on or alternative technologies that interoperate with the goods they buy, because innovators were able to develop and distribute such technologies. But in its current form, the DMCA threatens those freedoms.[2]

The anti-competitive effect of Section 1201 became evident early on with respect to DVDs. The encryption on DVDs was broken almost immediately, as were updated versions. Despite early lawsuits, easy-to-use DVD copying software has been available for free from many online sources for many years. Yet movie studios continued to embrace encryption, using it on every commercial DVD release. Why? We believe that one reason is that the movie studios (acting through their agent, DVD-CCA) could force innovators to sign a license agreement for that encryption software before they built anything that can decrypt a DVD movie.

This gave the movie studios unprecedented power to influence the pace and nature of innovation in the world of DVDs. Any new feature (like copying to a hard drive) must first pass muster in the 3-way "inter-industry" negotiation (movie studios, incumbent consumer electronic companies, and big computer companies) that is DVD-CCA In other words, you must get permission (from your adversaries and competitors!) before you innovate. If these had been the rules in the past, there would never have been a Betamax, much less an iPod.

But the problem does not stop with DVD technologies. Most modern durable goods—including household appliances, power tools, calculators, cameras, stereos, printer cartridges, garage door openers, as well as video game controllers, headsets, and memory cards—contain some element of copyrightable software code.[3] In order for replacement parts and compatible accessories to function, they must "access" the code inside. If unauthorized access amounts to circumvention of a TPM and is therefore prohibited, the manufacturer can use the DMCA to assert exclusive control over the market for those goods and accessories.

The detrimental effects on consumers are well documented. For instance, cell phone manufacturers sell phones equipped with technological protection measures that lock consumers to a particular service provider, forcing them to pay artificially inflated service charges and crippling the market for used phones.[4] According to the claims of major U.S. wireless carriers, unlocking a phone without your carrier's permission violates the DMCA. But a prohibition on unlocking has nothing to do with preventing infringement. Camera makers have similarly installed technological protection measures

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[2] *See* Dan L. Burk, *Anticircumvention Misuse*, 50 UCLA L. REV. 1095, 1139 (2003)

[3] See, e.g., David Chartier, *Microsoft's New Vision: A Computer in Every . . . Coffee Maker?*, Ars Technica, Jan. 12, 2009, http://arstechnica.com/microsoft/news/2009/01/microsofts-new-vision-a-computer-in-every-coffee-maker.ar.

[4] David Kravitz, *Apple v. EFF: The iPhone Jailbreaking Showdown*, Wired, May 2, 2009, http://www.wired.com/threatlevel/2009/05/apple-v-eff-the-iphone-jailbreaking-showdown/.

that render pictures unreadable in competitors' photo-editing programs, preventing consumers from editing their own pictures with their preferred software.[5]

Similarly, Apple has relied on the DMCA to "lock" iPhone owners into purchasing software exclusively from Apple's own App Store.[6] Apple uses technical measures backed by the DMCA to try to lock iPhone owners into obtaining software ("apps") exclusively from Apple's own iTunes App Store, where Apple must approve every app and retains 30% of revenues generated by app sales. This business practice has had significant consequences for both competition and speech, as Apple regularly rejects apps that might compete with Apple's own offerings or that are deemed "potentially offensive."[7]

Despite Apple's efforts, millions of iPhone owners, took steps to "jailbreak" their iPhones to use the carriers and apps of their choice. They did so under a legal cloud, however; Apple contended that these activities violated the DMCA. Responding to intensive efforts, the Librarian of Congress granted an exemption for jailbreaking, but that exemption is both narrow and temporary.

And that's just the beginning: the DMCA has been used to block aftermarket competition in laser printer toner cartridges, garage door openers, videogame console accessories, and computer maintenance services. For example, StorageTek sells data storage hardware to large enterprise clients. It also sells maintenance services for its products. Custom Hardware is an independent business that repairs StorageTek hardware. In an effort to eliminate this competitor in the maintenance services market, StorageTek sued under the DMCA, arguing that Custom Hardware had circumvented certain passwords designed to block independent service providers from using maintenance software included in the StorageTek hardware systems. In other words, StorageTek was using the DMCA to ensure that its customers had only one place to turn for repair services.[8]

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[5] Declan McCullagh, *Nikon's Photo Encryption Reported Broken*, CNET, Apr. 21, 2005, http://news.cnet.com/Nikons-photo-encryption-reported-broken/2100-1030_3-5679848.html.

[6] David Kravets, *Apple v. EFF: The iPhone Jailbreaking Showdown*, Wired, May 2, 2009, http://www.wired.com/threatlevel/2009/05/apple-v-eff-the-iphone-jailbreaking-showdown/.

[7] See e.g., Jason Kincaid, *Apple is Growing Rotten to the Core: Official Google Voice App. Blocked from App Store*, TechCrunch, Jul. 27, 2009), http://techcrunch.com/2009/07/27/apple-is-growing-rotten-to-the-core-and-its-likely-atts-fault/; Fred von Lohmann, *Another iPhone App Banned: Apple Deems South Park App 'Potentially Offensive*, EFF Deep Links, Feb. 17, 2009, http://www.eff.org/deeplinks/2009/02/south-park-iphone-app-denied.

[8] Fred von Lohmann, *DMCA Used to Stymie Competition . . . Again*, EFF Deep Links blog (Nov. 4, 2005), https://www.eff.org/deeplinks/2005/11/dmca-used-stymie-

The infamous Lexmark litigation is another case in point. Lexmark, the second-largest laser printer maker in the U.S., has long tried to eliminate the secondary market in refilled laser toner cartridges. Lexmark had added authentication routines between its printers and cartridges explicitly to hinder aftermarket toner vendors. Static Control Components (SCC) reverse-engineered these measures and sold "Smartek" chips that enabled refilled cartridges to work in Lexmark printers. Lexmark then used the DMCA to obtain an injunction banning SCC from selling its chips to cartridge remanufacturers. SCC ultimately succeeded in getting the injunction overturned on appeal, but only after 19 months of expensive litigation while its product was held off the market. The litigation alone sent a chilling message to those in the secondary market for Lexmark cartridges.[9]

Garage door opener manufacturer Chamberlain Group also invoked the DMCA against competitor Skylink Technologies after several major U.S. retailers dropped Chamberlain's remote openers in favor of the less expensive Skylink universal "clickers." Chamberlain claimed that Skylink had violated the DMCA because its clicker bypassed an "authentication regime" between the Chamberlain remote opener and the mounted garage door receiver unit. On Chamberlain's logic, consumers would be locked into a sole source not only for replacement garage door clickers, but virtually any remote control device. Like SCC, Skylink ultimately defeated Chamberlain both at the district court and court of appeals, but only after many months of expensive litigation. In the words of the court of appeals, Chamberlain's use of the DMCA was nothing less than an "attempt to leverage its sales into aftermarket monopolies."[10]

More recently, Microsoft used the DMCA to try to shut down competition for gaming accessories. Datel, Inc. produces third-party accessories for every major videogame console, including Microsoft's Xbox 360.[11] As with all third-party manufacturers, Datel must engineer its accessories so that they will be compatible with the chosen first-party console; this frequently requires reverse engineering or other work-arounds. In 2009, Microsoft issued a mandatory firmware update for all Xbox 360 consoles connected to the Internet: this update had no effect on Microsoft's own memory

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competition-again; *Storage Technology v. Custom Hardware Engineering*, 421 F.3d 1307 (Fed. Cir. 2005).

[9] Declan McCullagh, *Lexmark Invokes DMCA in Toner Suit*, CNET News (Jan. 8, 2003), http://news.com.com/2100-1023-979791.html; Lexmark v. Static Control Components, 387 F.3d 522 (6th Cir. 2004).

[10] Steve Seidenberg, *Suits Test Limits of Digital Copyright Act*, NAT'L L. J. (Feb. 7, 2003), http://www.law.com/jsp/article.jsp?id=1044059435217; Chamberlain Group v. Skylink Technologies, 381 F.3d 1178 (Fed.Cir.2004), *available at* http://scholar.google.com/scholar_case?case=16927618869037195909).

[11] Mike Masnick, *Microsoft Still Claiming That It Can Use The DMCA To Block Competing Xbox Accessories*, TechDirt (Jun. 21, 2011), http://www.techdirt.com/articles/20110620/10505614766/microsoft-still-claiming-that-it-can-use-dmca-to-block-competing-xbox-accessories.shtml.

cards, but rendered Datel's less expensive memory cards completely unusable. When Datel sued Microsoft for antitrust violations, Microsoft counterclaimed by accusing Datel of violating the DMCA. In a nutshell, Microsoft forced consumers to purchase its own memory cards and then used the DMCA to attack legitimate competitors.

Moreover, manufacturers of ordinary consumer products have sought to extend the DMCA to police consumer behaviors and innovations that happen to be contrary to the manufacturers preferences. For example, calculator manufacturers have brought circumvention claims against hobbyists who reverse-engineered their personal graphing calculators to develop alternative operating systems for personal use.[12]

Those manufacturers were likely influenced by the outcome of an earlier case, in which Vivendi-Universal's Blizzard Entertainment video game division brought a DMCA lawsuit against another group of hobbyists who created software that allowed owners of Blizzard games to play their games over the Internet. The software, called "bnetd," allowed gamers to set up their own alternative to Blizzard's Battle.net service. The bnetd software was freely distributed, open source, and noncommercial. Blizzard argued that the software could be used for illegal copying, although it had been neither designed nor used for that purpose by its creators. In a widely criticized decision, the Court of Appeals for the Eighth Circuit held that Congress' explicit protections for reverse engineering and add-on innovation in the DMCA are too narrow and weak to protect innovators from lawsuits when the software they create is used for illegal copying, even if the copying occurs without the knowledge or participation of the program's creators.[13]

2. Section 1201 Chills Free Expression and Scientific Research.

a. Freedom of the press

One of the first cases involving Section 1201, *Universal City Studios v. Reimerdes*, illustrated the chilling effect that the law would have on the freedom of the press. When 15-year-old Norwegian teenager announced that he had developed DeCSS, a software program that defeats the CSS encryption used on DVD movies, many news publications covered the story, including 2600 Magazine. In the course of its coverage, the magazine made the program that was at the heart of the controversy available on its web site. Dozens of other news organizations made a similar journalistic decision, including the New York Times, San Jose Mercury News and CNN, a division of Appellant Time Warner. Indeed, renowned copyright scholar Jane Ginsburg of Columbia Law School linked to sites that published DeCSS in order to help her students understand the controversy surrounding this litigation. 2600 was not involved in the development of the software, nor was it accused of having used the software for any copyright

[12] Dan Goodin, *Texas Instruments Aims Lawyers at Calculator Hackers*, The Register, Sept. 23, 2009, http://www.theregister.co.uk/2009/09/23/texas_instruments_calculator_hacking.

[13] *Davidson & Assoc. v. Jung*, 422 F.3d 630 (8th Cir. 2005).

infringement. Nonetheless, eight major motion picture companies used the brought DMCA claims against the magazine, seeking to block it from publishing the code, even though it was by then widely available.

Notwithstanding the First Amendment's guarantee of a free press, the district court permanently barred 2600 from publishing, or even linking to, the DeCSS code. The Second Circuit Court of Appeals upheld the lower court decision.[14] In essence, the movie studios effectively obtained a "stop the presses" order banning the publication of truthful information concerning a matter of public concern—an unprecedented curtailment of well-established First Amendment principles.[15]

b. Security research

Since 1998, Section 1201 has been used repeatedly to prevent researchers from investigating various DRM technologies, and/or from talking about what they find. The threat was illustrated early on by the actions of a multi-industry group known as the Secure Digital Music Initiative (SDMI) issued a public challenge encouraging skilled technologists to try to defeat certain watermarking technologies intended to protect digital music. Princeton computer science professor Edward Felten and a team of researchers at Princeton, Rice, and Xerox took up the challenge and succeeded in removing the watermarks.

When the team tried to present their results at an academic conference, however, SDMI representatives threatened the researchers with liability under the DMCA. The threat letter was also delivered to the researchers' employers and the conference organizers. After extensive discussions with counsel, the researchers withdrew their paper from the conference. The researchers took the matter to court, the threat was ultimately withdrawn and a portion of the research was published at a subsequent conference. After enduring this experience, at least one of the researchers involved has decided to forgo further research efforts in this field.[16]

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[14] *Universal City Studios v. Reimerdes*, 111 F. Supp. 2d. 294 (S.D.N.Y. 2000), aff'd sub nom. *Universal City Studios v. Corley*, 273 F.3d 429 (2d Cir. 2001).

[15] Carl S. Kaplan, *Questioning Continues in Copyright Suit*, N.Y. Times, May 4, 2001, http://www.nytimes.com/2001/05/04/technology/04CYBERLAW.html; Simson Garfinkel, *The DVD Rebellion*, MIT Technology Review (July 1, 2001), http://www.technologyreview.com/article/401086/the-dvd-rebellion/; Xenia P. Kobylarz, *DVD Case Clash—Free Speech Advocates Say Copyright Owners Want to Lock Up Ideas; Encryption Code is Key*, S.F. Daily J., May 1, 2001.

[16] Pamela Samuelson, *Anticircumvention Rules: Threat to Science*, 293 Science 2028, Sept. 14, 2001; Letter from Matthew Oppenheim, SDMI General Counsel, to Prof. Edward Felten, April 9, 2001, *available at* http://cryptome.org/sdmi-attack.htm; *Felten, et al. v. RIAA, et al.*, EFF, https://www.eff.org/cases/felten-et-al-v-riaa-et-al (last visited Jan. 10, 2013).

Threats like these have chilled the legitimate activities of journalists, publishers, scientists, students, programmers, and others. Bowing to DMCA liability fears, online service providers have censored discussions of copy-protection systems, programmers have removed computer security programs from their websites, and students, and security experts have stopped publishing details of their research.

These developments weaken security for all computer users, as security researchers shy away from performing and/or sharing research that might run afoul of section 1201. For example, when a group of Princeton researchers discovered the existence of several security vulnerabilities in the CD copy-protection software on dozens of Sony-BMG titles, they delayed publishing the discovery for several weeks while consulting with lawyers in order to avoid DMCA pitfalls.[17] This left millions of music fans at risk, until the security flaws inherent in Sony-BMG's "rootkit" copy-protection software were subsequently publicized by another researcher who was apparently unaware of the legal cloud created by the DMCA.

Researchers estimated that the rootkit compromised the security of more than 500,000 networks, including government and military networks.[18] As consumers and government become increasingly aware of the importance of protecting computer security, they should be deeply concerned about any legal restriction that might inhibit researchers' ability to find and publicize security vulnerabilities.

Section 1201 does include a number of exceptions for certain limited classes of activities, including security testing, reverse engineering of software, encryption research, and law enforcement. However, these exceptions are much too narrow to be of real use to the constituencies they were intended to assist.[19] As Professor Felten put it, the security research exceptions "appear[] to have been written without consulting any researchers. There may be someone, somewhere, who has benefited from this exemption, but it fails to protect almost all of the relevant research."[20]

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[17] *See* Edward Felten, *The Chilling Effects of the DMCA*, Slate, Mar. 29, 2013, http://www.slate.com/articles/technology/future_tense/2013/03/dmca_chilling_effects_how_copyright_law_hurts_security_research.single.html

[18] Cory Doctorow, Sony Infects More Than 500k networks, Including Military and Govt., BoingBoing, Nov. 5, 2005, http://boingboing.net/2005/11/15/sony-infects-more-th.html

[19] *See* Pamela Samuelson, Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised, 14 Berkeley Law Journal 519, 537-57 (1999).

[20] *See* Edward Felten, *The Chilling Effects of the DMCA*, Slate, Mar. 29, 2013, http://www.slate.com/articles/technology/future_tense/2013/03/dmca_chilling_effects_how_copyright_law_hurts_security_research.single.html

3. Section 1201 Jeopardizes Fair Use.

"Fair use" is a crucial element in American copyright law—the principle that the public is entitled, without having to ask permission, to use copyrighted works in ways that do not unduly interfere with the copyright owner's market for a work. Fair uses include personal, noncommercial uses. Fair use also includes activities undertaken for purposes such as criticism, comment, news reporting, teaching, scholarship or research.

By banning all acts of circumvention, and all technologies and tools that can be used for circumvention, the DMCA grants to copyright owners the power to unilaterally eliminate many fair use rights. To make a fair use of a copyrighted work, a person must be able to access that work. Today, many forms of digital content—including e-books and video—are "copy-protected" and otherwise restricted by technological means. Whether scholars, researchers, commentators and the public will continue to be able to make legitimate fair uses of these works will depend upon the availability of tools to bypass these digital locks, and the legal right to use those tools.

The DMCA, however, prohibits the creation or distribution of such tools, even if they are needed to enable fair uses. As a result, fair uses have been whittled away by digital locks allegedly intended to "prevent piracy." Equally importantly, the DMCA prevents the law from developing to encompass new technologies. Future fair uses may not be developed for restricted content, because courts will never have the opportunity to rule on them. Fair users will be found liable for "picking the lock" and thereby violating the DMCA, whatever the merits of their fair use defense.

For example, e-books often include DRM technology that prevents people who are blind or visually impaired from running book that they have lawfully purchased through a text-to-speech converter. Similarly, Internet-distributed video and DVD and Blu-ray discs include DRM features that inhibit development of advanced closed captioning and video description technologies that make movies and television shows accessible.[21] Technologies for bypassing these technologies are available and clearly serve a valuable and non-infringing purpose. Nonetheless, using them may be unlawful under the DMCA except where disability rights advocates have managed to obtain a temporary exemption. Moreover, as discussed below, because the exemption process does not apply to the distribution of tools, companies and individuals that develop these technologies remain under threat.

DVD technologies provide another object lesson. There are many legitimate reasons to copy DVDs. Once the video is copied to a computer, for example, lots of fair uses become possible—video creators can remix movie clips into original YouTube

[21] Blake Reid, *The Digital Millennium Copyright Act Is Even Worse Than You Think*, Slate, Mar. 20, 2013, http://www.slate.com/articles/technology/future_tense/2013/03/dmca_copyright_reform_u_s_law_makes_digital_media_inaccessible.html

videos, frequent travelers can load the movie into their laptops, and DVD owners can skip the otherwise "unskippable" commercials that preface certain films.

DMCA lawsuits targeting makers of DVD copying tools hampered these and other fair uses. In *Universal v. Reimerdes*, for example, the court held that the DMCA bans DeCSS, the first of many widely available free tools for decrypting and copying DVDs. In another case, federal courts ordered 321 Studios' DVD X Copy product taken off the shelves for violating the DMCA. Major movie studios also used the DMCA to sue Tritton Technologies, the manufacturer of DVD CopyWare, and three website distributors of similar software.[22]

Those lawsuits, and the Section 1201 generally, cast a legal cloud over a variety of valuable creative activities, particularly audiovisual "remixes."

The creative practice of "remixing" existing video content to create original expression is a time- honored tradition dating to 1918 when Lev Kuleshov began splicing and assembling film fragments to tell new stories.[23] Today, the ability to remix and share video content has been democratized to an unprecedented degree, thanks to the combination of inexpensive video editing tools on personal computers and free, easy-to-use video hosting services such as YouTube. Every day, thousands of Americans create and share original, primarily noncommercial videos that include clips taken from works released on DVD. Remixing is also being recognized as an important pedagogical practice on every educational level, with scholarship as well as practical classroom textbooks being written on this subject.[24]

All of these forms of remix are valuable not only as creative works, but also because they help create the next generation of artists, who can gain skills and exposure otherwise entirely unavailable to them. As one artist told the Organization for Transformative Works, a nonprofit dedicated to promoting remix culture,

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[22] Matthew Mirapaul, *They'll Always Have Paris (and a Scholarly Web Site)*, N.Y. Times (March 16, 2002), http://www.nytimes.com/2002/03/18/movies/arts-online-they-ll-always-have-paris-and-a-scholarly-web-site.html; Lisa Bowman, *Hollywood Targets DVD- Copying Upstart*, CNET News (Dec. 20, 2002), http://news.com.com/2100-1023-978580.html; *Paramount Pictures Corp. v. Tritton Technologies Inc.*, No. CV 03-7316 (S.D.N.Y. filed Sept.17, 2003); *321 Studios v. MGM*, 307 F.Supp.2d 1085 (N.D. Cal. 2004).

[23] Lev Kuleshov, *Kuleshov on Film* (1974).

[24] Colin Lankshear & Michele Knobel, *Remix: The Art and Craft of Endless Hybridization*, 52 Journal of Adolescent & Adult Literacy 22-33 (2008), *available* http://extendboundariesofliteracy.pbworks.com/f/remix.pdf; Catherine Latterell, *Remix: Reading and Composing Culture* (2005); Kristina Busse & Alexis Lothian, *Scholarly Critiques and Critiques of Scholarship: The Uses of Remix Video*, 26 Camera Obscura 2 77: 139, 142 (2011).

> I began [creating remix videos] in 1999 as a teenager living in Australia, mainly in The X-Files fandom and long before the days of YouTube. The advent of that site gave a much larger audience for my work, including some Creative Directors at various trailer houses who began offering me paid work and beginning my career as a trailer editor and producer. I now live in New York city cutting high-end theatrical trailers for cinema. The point is, had I not had the outlet such as YouTube to conceive, develop and showcase my work, I would not be in this profession today. There is a great need for trailer cutters in my highly competitive and niche industry, and we need to develop as many of the best next generation of trailer editors as we can.[25]

The Register of Copyrights has acknowledged that many remix videos are protected by the fair use doctrine and, therefore, do not infringe copyright. Nonetheless, the process of creating them risks violating the DMCA where, as is common, the creator must use a "DVD ripper" to extract video clips. Moreover, because the vast majority of remix creators are amateur videographers who engage in video creation as a hobby, they are unlikely to have access to copyright counsel to explain the subtleties of the DMCA to them and are likely unaware of the counterintuitive nature of circumvention liability as applied to DVDs. It will strike many laypersons as bizarre that relying on infringing copies taken from unauthorized Internet sources are preferable (from a circumvention point of view) to "ripping" a DVD that you have purchased. Similarly, the public may find it hard to believe that taking excerpts by means of video capture carries different legal consequences than using a DVD ripper to accomplish the same result.

Working closely with OTW, EFF has managed to obtain exemptions for some forms of remix activities, but those exemptions are limited and temporary. A permanent fix is needed to truly protect these creators.

Other kinds of fair uses were also hampered, particularly format-shifting. In October 2008, RealNetworks was forced to stop sales of its RealDVD software, which allowed users to copy a DVD and store it on their hard drive. This format-shifting by RealDVD would have enabled DVD owners to create backups, organize a movie collection digitally, and watch a DVD at any time without being tied to a physical disc—all valuable personal uses. Nor did RealDVD represent a "piracy" threat: RealDVD preserved the DVD's CSS copy-protection system and added numerous additional control measures. RealNetworks also took a license from the DVD Copy Control Association to perform the necessary DVD decryption. Nevertheless, a federal court ruled in August

[25] Email from Lyle to OTW (July 27, 2010) (on file with authors). Another vidder recently secured a contract with the producers of House because of the editing capability she demonstrated in her House vids. See Live Journal, http://vidding.livejournal.com/275 1680.html (last visited Nov. 30, 2011).

2009 that, even if the uses enabled by RealDVD were lawful fair uses, the DMCA forbids the distribution of tools like RealDVD.[26]

The same anti-innovation tactics have also been applied to streaming. One example involved, ironically enough, RealNetworks. Start-up software company Streambox developed a product, known simply as the Streambox VCR, designed to time-shift streaming media. When RealNetworks discovered that the Streambox VCR could time-shift streaming RealAudio webcasts, it invoked the DMCA and obtained an injunction against the product.[27]

4. Section 1201 harms the environment by impeding electronics repair and recycling.

From phones to cars to refrigerators to farm equipment, software is helping our stuff work better and smarter, with awesome new features. But if that software is protected by DRM, repair and recycling these goods may require circumvention, in violation of Section 1201. That means more people will feel pressured to simply throw those goods away, rather than repairing and re-using them.

For example, phones that are locked to a single carrier are less likely to be reused, particularly if the act of unlocking a phone could expose a person to civil and criminal liability under the DMCA. According to the Environmental Protection Agency, as of February 2009 only 10 percent of unwanted cell phones were recycled each year.[28] And sending used phones and other electronics to landfills isn't just wasteful, it also contributes to air and water pollution and greenhouse gas emissions.[29] Cell phones are actually considered to be hazardous waste by the California Department of Toxic Substances Control, because they may contain antimony, arsenic, beryllium, cadmium, copper, lead, nickel, and zinc.[30]

5. The costs don't outweigh the benefits.

These costs might be tolerable if they were outweighed by real benefits, i.e., if our anti-circumvention rules and the technologies they are supposed to backstop actually

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[26] *Real Networks, Inc. v. DVD Copy Control Ass'n*, 641 F. Supp. 2d 913, 942 (N.D. Cal., 2009).

[27] *RealNetworks, Inc. v. Streambox, Inc.*, No. C99-2070P, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000).

[28] EPA, *Fact Sheet: Recycle Your Cell Phone: It's An Easy Call* (Feb. 2009), http://www.epa.gov/osw/partnerships/plugin/cellphone/cell-fs.htm.

[29] *Id.*

[30] Cal. Dep't of Toxic Substances Control, *Universal Waste*, http://www.dtsc.ca.gov/hazardouswaste/universalwaste/index.cfm.

deterred infringement. Sadly, they do not.[31] For example, notwithstanding the DMCA, the encryption on movie DVDs was broken early and provided no meaningful protection against widespread infringement. Every film that Hollywood releases is available within days, or even hours for those who really want an unauthorized copy. The same was true with respect to music and is still true with respect to games and other content. Individuals and companies that engage in large-scale copyright infringement are not deterred by Section 1201. After all, chances are they are *already* on the hook for substantial copyright damages.

Nevertheless, legitimate media sources manage—year after year—not only to stay afloat, but to flourish. iTunes, Amazon, Magnatune and dozens of other sites sell huge volumes of music without the need for DRM. Streaming services like Netflix and Spotify have succeeded because they are more convenient than unauthorized alternatives, not because DRM does anything to enhance their economics. Indeed, just a few months ago Frank Gibeau, the president of Electronic Arts, declared DRM to be a "failed dead-end strategy."[32]

In fact, DRM may actually encourage more infringement by making "legitimate" media options less attractive. In 2002, Microsoft engineers considering the effectiveness of DRM suggested as much, noting that DRM was likely to drive consumers to unauthorized distribution mechanisms, i.e., "the darknet."

> There is evidence that the darknet will continue to exist and provide low cost, high-quality service to a large group of consumers. This means that in many markets, the darknet will be a competitor to legal commerce. From the point of view of economic theory, this has profound implications for business strategy: for example, increased security (e.g. stronger DRM systems) may act as a *disincentive* to legal commerce. Consider an MP3 file sold on a web site: this costs money, but the purchased object is as useful as a version acquired from the darknet. However, a securely DRM- wrapped song is strictly *less* attractive: although the industry is striving for flexible licensing rules, customers *will* be restricted in their actions if the system is to provide meaningful security. This means that a vendor will probably make more money by selling unprotected objects than protected objects. In short, if you are

[31] This likelihood was spotted early on. See, e.g., Stuart Haber, Bill Horne, Joe Pato, Tomas Sander, Robert Endre Tarjan, "If Piracy is the Problem, is DRM the Answer?" http://www.hpl.hp.com/techreports/2003/HPL-2003-110.pdf

[32] Andras Neltz, EA Labels President Calls DRM a "Failed, Dead-End Strategy." http://kotaku.com/ea-labels-president-calls-drm-a-failed-dead-end-strat-461313335

> competing with the darknet, you must compete on the darknet's own terms: that is convenience and low cost rather than additional security.[33]

DRM technologies, even supported by legal protections such as Section 1201, don't stop copyright infringement. They do impede innovation and thwart traditional consumer rights and expectations.

6. The Exemption Process Does Not Save Matters.

The DMCA triennial rulemaking was meant as a "fail-safe" to prevent DRM from encroaching on the public's ability to engage in activities that would otherwise be perfectly legal under copyright law. Unfortunately, the rulemaking has not served its purpose. The exemptions created by the Copyright Office can be helpful but, as the cell phone unlocking episode showed, they are too narrow and too brief. They also turn a small, specialized federal office into a sort of Technology Regulation Bureau. However well intentioned and dedicated the Copyright Office and the Library of Congress may be, it does not make sense to task a small group of overburdened copyright lawyers and librarians with making decisions that can shape the future of technology markets.

The process does not apply to tools. The DMCA provides that the Librarian of Congress can only grant exemptions from the DMCA's prohibition on *acts* of circumvention; exemptions from the DMCA's prohibition on distributing *tools* of circumvention are not within the scope of the rulemaking. As a result, exemptions granted can only be exercised by persons who have the technical know-how to fashion their own software or hardware circumvention tools. Thus, the rulemaking proceeding holds out, at best, an empty promise to consumers: a legal right to circumvent, without access to the tools necessary to make that right a reality.

The process is complex and burdensome. Any person interested in participating meaningfully in the DMCA rulemaking process must first decipher a bewildering array of legal arcana and independently gather considerable evidence. Rather than receiving public comments and engaging in independent fact-finding, as many administrative agencies do, the Copyright Office has instead laid a heavy burden on the shoulders of those seeking DMCA exemptions: "[P]roponents must show by a preponderance of the evidence that there has been or is likely to be a substantial adverse effect on noninfringing uses by users of copyrighted works."[34] Meeting that standard—which is not found in the DMCA's text—generally requires the assistance of specialized copyright attorneys, technical experts, researchers, and industry analysts. Without expert assistance, individuals cannot reasonably gather the evidence and devote the time

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[33] Petter Biddle, Paul England, Marcus Peinado, and Bryan Willman, "The Darknet and the Future of Content Distribution" Microsoft Corporation (2002); *see also* M. Masnick: "File-sharing Moving En Masse to the Darknet," Techdirt, Mar. 5 2012.
[34] Register's 2003 Recommendation at 6. 7 17 U.S.C. § 1201(a)(1)(C).

necessary to participate successfully in the DMCA rulemaking process. And even if she does succeed, she must be prepared to make the case again, three years later.

The exemptions that are granted continue to be unnecessarily narrow. Security researchers had sought a DMCA exemption in 2003 in order to facilitate research on dangerous DRM systems like the Sony-BMG rootkit, but the Librarian of Congress denied their request.[35] In 2006, the Librarian granted an exemption to the DMCA for researchers examining copy protection software on compact discs.[36] However, this exemption, did not protect researchers studying other DRM systems. In 2009, security researchers again sought a DMCA exemption for computer security research relating to DRM systems, including the protection mechanisms used on the Electronic Arts videogame, Spore, which has been the subject of class action lawsuits alleging security vulnerabilities.[37] A narrow version of this exemption was granted in 2010. However, the exemption was not renewed in 2012, leaving this research vulnerable to legal action.[38]

The fight for DVD exemptions offers another telling example. Exemptions have been sought to allow movie critics to post movie clips, DVD owners to skip "unskippable" previews and commercials, and legitimate purchasers to bypass "region coding" restrictions on their DVD players. Every DVD-related request was denied in both the 2000 and 2003 triennial rulemakings.[39] In 2006, a narrow DMCA exemption was granted to allow film professors to create compilations of motion pictures for educational use in the classroom.[40]

In 2009, educators renewed their request for an exemption that would allow film professors, media studies educators, and students to use short clips taken from DVDs for educational purposes.[41] EFF and the Organization for Transformative Works also applied

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[35] Recommendation of the Register of Copyrights in RM 2002-4, Oct. 27, 2003, 87-89, http://www.copyright.gov/1201/docs/registers-recommendation.pdf.

[36] Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 71 Fed. Reg. 68,472, 68,477 (Nov. 27, 2006), http://www.copyright.gov/fedreg/2006/71fr68472.pdf.

[37] Comments of Prof. J. Alex Halderman, http://www.copyright.gov/1201/2008/comments/halderman-reid.pdf.

[38] See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 77 Fed. Reg. 208 (Oct. 26, 2012) (to be codified at 37 C.F.R. pt. 201), http://www.copyright.gov/fedreg/2012/77fr65260.pdf.

[39] Copyright Office, Recommendation of the Register of Copyrights in RM 2002-4, 109-26 2003), *available at* http://www.copyright.gov/1201/docs/registers-recommendation.pdf.

[40] Statement of the Librarian of Congress Relating to Section 1201 Rulemaking, Copyright Office (Nov. 27, 2006), http://www.copyright.gov/1201/docs/2006_statement.html.

[41] Comments of Renee Hobbs, Peter Decherney, Library Copyright Alliance, http://www.copyright.gov/1201/2008/index.html.

for an exemption to allow remixers to extract clips from DVDs to create noncommercial remix videos.[42] While the motion picture industry endorsed a renewal of the narrow exemption for film professors, it opposed any expansion to permit other noninfringing uses of DVDs, going so far as to suggest that noninfringing users should camcord DVD clips from flat screen televisions.[43] In a major victory for remixers, educators, and other innovators, the Librarian of Congress finally approved several requests in 2010. These exemptions were renewed and expanded in 2012. But in about a month, we will have to start the process all over again, without any certainty as to whether we will succeed.

7. What can we do to "fix" Section 1201?

We believe the best outcome would be for Congress to overturn Section 1201 altogether. Short of that, the law should be scaled back to ensure that its applicability is limited to the situations it was intended to target: using or distributing tools for circumvention should not be a violation unless the use or distribution is intended to facilitate copyright infringement. Not only would this bring the law back in line with its intent, but it would dramatically reduce the enormous costs of the triennial rulemaking process that are currently shared by the government, the public, and rightsholders. That is why we strongly support the "Unlocking Technology Act," introduced last year by Representative Zoe Lofgren and a bipartisan group of sponsors.

In the meantime, the triennial rulemaking process should be reformed. Such reforms should include:

• *Independent Fact-Finding.* As part of the triennial rulemaking, the Copyright Office should actively solicit input from users and undertake independent fact-finding to determine whether lawful uses of copyrighted works are being impaired by DRM technologies.

• *Reduce Complexity and Re-assign Burdens of Proof.* The complexity and burden now imposed on consumers should be replaced with a regime that imposes the burden of proof on those best positioned to shoulder it. Accordingly, once a petitioner comes forward with a concern regarding a lawful use that appears to be impaired by DRM restrictions, the burden should then shift to the copyright owner to (1) describe how the DRM technology functions and how widely it is deployed; and (2) demonstrate by a preponderance of the evidence that continuing DMCA protection for the DRM in question is necessary to the market viability of the work.

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[42] Comments of EFF and OTW, http://www.copyright.gov/1201/2008/comments/lohmann-fred.pdf

[43] Jacqui Cheng, *MPAA: Teachers Should Videotape Monitors, Not Rip DVDS, Ars Technica*, May 7, 2009, http://arstechnica.com/tech-policy/news/2009/05/mpaa-teachers-should-video-record-tv-screens-not-rip-dvds.ars

• *Leave Fair Use to the Courts.* Where a petitioner comes forward with a use, otherwise impeded by DRM restrictions, that might plausibly be viewed by a court as a fair use, the Copyright Office should presume that the use in question is a fair use for purposes of considering whether an exemption should be granted.

• *Authorize Exemptions to Include Distribution of Circumvention Tools.* As noted above, consumers must have access to circumvention tools if they are to be able to take advantage of any DMCA exemptions granted in the rulemaking. Congress should expand the scope of the rulemaking proceedings to expressly authorize the Librarian to grant exemptions to the DMCA's prohibitions on trafficking in circumvention tools to the extent necessary to permit technically unsophisticated consumers take advantage of any exemptions to the DMCA's circumvention prohibition granted in the rulemaking.

The 15-year history of DMCA abuse has cast a long shadow. Consumers, researchers, journalists, programmers, and others now must approach non-infringing activities with fear of legal liability—even if litigation never materializes. The DMCA has given anti-competitive, anti-consumer, and speech and research-chilling forces a powerful tool that now requires little effort to leverage. Given the existence of other legal mechanisms for policing actual infringement, we believe the costs far outweigh the benefits. We encourage you to continue this important conversation and consider legislative proposals that would limit those costs.

Mr. MARINO. Thank you, Ms. McSherry. You paled us; you have set an excellent record coming in on the 5 minute mark and a wonderful example for we on the dais. So hopefully we will keep our comments to 5 minutes as well. As is my practice, I wait and ask question at the very end since I am going to be here for the whole hearing. And, as a result, I am going to recognize the distinguished gentleman from Ohio, Mr. Chabot for his 5 minutes of questioning.

Mr. CHABOT. Thank you, Mr. Chairman, and I will stay within the 5 minute rule, myself, for sure.

I will start with Mr. Zuck, if I can. I recently came across a story about a family back in my district, back in Cincinnati, Ohio, that developed a successful app known as Kalley's Machine. It is an interactive app that allows children to play with a fictitious food creating machine. Their app recently launched and their success has led them to create the interactive gaming company called Rocket Wagon. This is a great success story and there are stories like this, I'm sure, happening across the country. We are particularly proud of the one happening in our area, of course.

My concern, Mr. Zuck, is with piracy that threatens these startups and companies like Rocket Wagon. Pirates are creating copycat apps and selling them under a different name. How significant is this threat? Are the tools provided by the DMCA sufficient to stop this activity or are the tools found elsewhere in Title 17? And what additional tools would you like to see put in a place to protect app developers and consumers like Kalley back in the Cincinnati area?

Mr. ZUCK. Congressman, thank you for the question and Rocket Wagon is a great success story and a great company. And piracy does continue to be an ongoing problem. And so, as I stated in my testimony, I think the DMCA and the technical protection measures that it enables have gone a long way to help in that process because it has allowed for curated stores and those particular stores have a much better record of finding and removing both pirated and poorly intentioned software from the store than less curated marketplaces. And so, there is a lot of evidence to support that.

And so, to say the DMCA is sufficient, I'm never going to say that, but it has certainly played a very significant role, I believe, in altering the landscape that existed previously in software. And so, I think that that has provided a significant environment in which apps have been able to survive. I think that we are always looking for new and creative mechanisms to try and protect software developers from piracy; it does continue to be an ongoing problem. We had another member, Zoo Train, that had basically the, you know, its app pirated and replaced with malware under a similar name and sold, you know, from the store. And it, you know, and in an un-curated store it took over 6 months to remedy that; right?

And so there are still challenges ahead and there are alternatives being developed in the marketplace and proposals that come up from time to time to address issues particularly in the international marketplace. But I believe, fundamentally, the DMCA has played a very fundamental role in creating an environment in which less piracy occurs and less malware affects the com-

puters of consumers. And so that is why we came today to be in support of real cautious reform of the DMCA if any.

Mr. CHABOT. Thank you. Let me direct my next question at Mr. Genetski.

Could you describe specifically how TPMs have allowed the video game industry to innovate?

Mr. GENETSKI. Yes. Thank you, Congressman.

I think there are three parts to the story of the role TPMs have played in our industry. One is, as a matter of technology backstopped by the rule of law and the DMCA, it has been effective in not completely eliminating but certainly diminishing piracy. And the best way to illustrate that is the historical difference in piracy rates between games for the PC platform which doesn't employ TPMs on the computer, on the platform, and those on game consoles which employ TPMs on the platform to recognize and stop the playback of pirated content. Those rates have been drastically different, and the PC packaged game market was severely undercut by piracy.

It has, in fact, shifted. And part two of the story is sort of TPMs sort of playing a role in reinventing the PC game market and allowing it to flourish in a new way by moving content to the cloud and to server-based online games, where the platform then, because the content is held back on the publisher servers, can be protected by TPMs and can authenticate and allow only legitimate users to access and play the game together.

The third, and probably the most underreported part of the story, is that TPMs have been an incredibly useful tool in allowing the game publisher to compete with free and to compete with unauthorized versions. By allowing users to do things like have a 48-hour free trial period with an expensive game so they can evaluate whether they like the game and want to make the choice; using tools to allow users to start the game on their phone, then play a little more later in the day at lunch on their tablet and then when they get home at night, resume progress in that game on their 60-inch TV screen at home. One experience, one purchase of a game.

These are things users want and TPMs are the backstop, and the DMCA puts the rule of law behind that for making piracy an irrational consumer choice.

Mr. CHABOT. Thank you very much. My time has expired and yield back.

Mr. MARINO. Thank you, sir.

The Chair, excuse me, the Chair now recognizes the Chairman of the full Committee, the gentleman from Virginia, Congressmen Goodlatte for his opening statement.

Mr. GOODLATTE. Thank you, Mr. Chairman, and I thank you for taking me out of order and I appreciate both sides of the offer of allowing me to give my opening statement, I am going to forego asking questions but I did want to get this statement on the record.

This morning, the Subcommittee is continuing its comprehensive review of our copyright laws with a look at Chapter 12, a relatively recent edition to Title 17 that addresses technological protection measures, or TPMs. When the DMCA was enacted there was significant concern that the digitization of our economy would result in mass piracy becoming an unfortunate reality for many copyright

owners. TPMs were intended to enable copyright owners to engage in self help to protect their works from theft.

Depending upon one's perspective, TPMs have either been an effective tool to thwart piracy or have simply been a small speed bump to those who intend to steal copyrighted works regardless of the law. Copyright owners, themselves, have reevaluated the need for TPMs. For example, the music industry has, in recent years, turned away from widespread use of TPMs.

Our witnesses, this morning, have suggested various options to modify Chapter 12, some with a scalpel and others would perhaps blunter instruments. I look forward to hearing their thoughts about how Chapter 12 has worked so far and what options the Committee should consider. As someone who was very active in negotiating all of the DMCA, I am not sure that anyone involved in the drafting would have anticipated some of the TPM uses that have been litigated in court. Such as replacement printer toner cartridges and garage door openers. So I am also interested in ways to better focus Chapter 12 on protecting copyright works from piracy rather than protecting non-copyright industries from competition.

And Mr. Chairman, I yield back.

Mr. MARINO. Thank you, Chairman.

The Chair now recognizes the full Committee Ranking Member, the gentleman from Michigan, Congressman Conyers for his questions.

Mr. CONYERS. Thank you, Mr. Chairman.

I would like to address this question to the Vice-President, Christian Genetski. Your testimony, sir, mentions targeted efforts to improve the efficacy and efficiency of the triennial rulemaking process may well be worth consideration. What kind of changes would you recommend for the process?

Mr. GENETSKI. Thank you, Congressman.

You know, I think that we all share the frustration expressed by Mr. Richert in his testimony about the need to return repeatedly and use extensive resources to seek a renewal of an exemption where no one is opposing the exemption. So I think there are instances like those where now we have the experience of several iterations of the rulemaking process, where we have seen some patterns emerge.

I don't have the bulletproof solution and recommendation today, but I think that there are clearly areas that are emerging like those that Mr. Richert speaks to that may warrant some thought about how we might address situations like that, which are contrasted to the proceeding that Ms. McSherry and I participated in with regard to video game consoles, where I felt like the process worked well. We had a voluminous record; reasoned argument from both sides and what I felt was a fair result based on the evidence.

I think we need to look across all the instances we have seen over time and see if we can isolate instances where there might be room for target improvement.

Thank you.

Mr. CONYERS. Thank you.

Mr. Zuck, The App Association. Do you believe there are opportunities to continue to improve the law and ensure that it is ready for the next generation of technological advances? And why do you

believe we should be wary of dismantling a series of compromises that have served innovation and creativity well for the past 16 years?

Mr. ZUCK. Thank you for the question, Congressman, and again I agree, I believe, with everyone on this panel that there is always room for improvement in the law and potentially, particularly, in the rulemaking process and the review process that happens every 3 years to make that process more fluid and create fewer impediments to legitimate exemptions.

The reason that I express some caution is that because the facts are with the law in that, taken as a whole, it has worked. As I stated in my testimony, it has facilitated a $68 billion industry by allowing app developers to new levels of protection and consumers a new level of protections from malware and the need to replace software, et cetera. And those things are enabled because of those technical protection measures that the DMCA called for.

So the fact that there has been some instances along the way where the law has been tested, I think, is really not anything, any different from any other law. I mean it is a, you know, it feels very normal that the guidelines are set up by the legislature and kind of implemented, you know, through rulemaking and reviewed by the judiciary. I mean, I remember that from Schoolhouse Rock, in grade school, being the way that things are supposed to work. And I think that if we applied a test that said that if every law that has been brought before a court needs to be gotten rid of, we would get rid of a whole lot of laws that a lot of us find very valuable.

And so, I think that we need to be cautious in our reforms because I think when taken as a whole, it is obvious that the law has been successful and we need to deal with the exceptions to that success but we also need to remember that as a whole it's been successfully so we should make very fine tuned and, as Chairman Goodlatte stated, use a scalpel instead of a sledgehammer when attempting that reform.

Mr. CONYERS. Thank you both and I yield back, Mr. Chairman.

Mr. MARINO. Five, four, three, two. [Laughter.]

you get your breath?

The Chair now recognizes the gentleman from California, Congressman Issa.

Mr. ISSA. Thank you, Mr. Chairman.

It is really great to be here today. You know, before I sort of go through questions, one of my concerns is that we don't have somebody from the Library here. We don't have, if you will, the representation of that part of it. And hopefully that is something that the Chair will realize that we need that perspective.

Let me ask a first question, which is if we leave the system in place the way it is now and Congress continues to be faced with, if you will, decisions we don't like or things like the cellular situation of cracking, where you clearly bought something, the software was incidental to the hardware you bought; is there flexibility in the current system to in fact allow Congress' view to quickly be seen or do we have to hope that there is a large enough public outswell, up-swell to do what we did on telephone, you know, if you will portability rights?

Please.

Ms. MCSHERRY. Well, I think that flexibility does exist. Congress has the ability to set copyright policy and that is Congress' job. But it does strike me as a remarkably cumbersome process to make sure people can do some things basic like unlock their phones or any of the other things that we haven't even though of yet. Keep in mind that we haven't, there are many innovations that involve TPMs that might need to be circumvented for perfectly lawful uses. So, and just to address something that has come up earlier, it is not just that occasionally that these TPMs are litigated and impede competition, EFF has actually an increasingly larger and longer and longer paper collecting all the examples of unintended consequences of Section 1201.

So I think the better solution is rather than this kind of piecemeal approach, trying to backstop the Librarian of Congress, is rather a broader approach. So if we are going to retain Section 1201, we should reform it so that the acts of circumvention for which one might be liable actually just applied to acts that are tied to some intent to infringe copyright or facilitate copyright infringement. And in addition, I think it is extremely important that we consider reforming the law so that the exemptions that are created and do exist apply to tools and not just the acts of circumvention. That is a real big flaw in the current exemption process.

Mr. ISSA. Thank you.

Mr. Genetski, I guess my question to you would be similar. Congress acting is certainly cumbersome by comparison to court review because the court can essentially say you didn't get it right under the intent of Congress. But for Congress to say it, we need the House, the Senate and the President. Do we need further administrative review that has a bias toward the intent of the Digital Millennium Copyright Act, which was to protect intellectual property while allowing entities that own something to get its full use? And I know we have a representative here that specifically blind people often find themselves without an accommodation and only through circumvention can they get an equivalent level of access.

So the question is do we look at the existing system, particularly with a review process that is under the Library of Congress, not under the patent and trademark office, or do we look at real reforms that create some sort of administrative review that has a bias toward fair access?

Mr. GENETSKI. Thank you, Congressman.

I think that the design of the statute, with its balance of prohibitions and its balance of statutory exemptions for things like reverse engineering and security testing and interoperability, strike the right framework to——

Mr. ISSA. Okay then. If you think it does, then I will go to Mr. Zuck. And the question is—No, no, look. I mean I am looking for those who obviously think it is fine, but there are some questions based on specific examples where it didn't work.

Mr. Zuck, we have got a 3-year review. We have got essentially Congress is the backstop. We have no advocate position of review if you don't like it pretty much other than coming to Congress. So quickly I could have each of your thoughts.

Mr. ZUCK. I will say quickly, I think the system has largely worked. There are some exceptions and I think it is worth explor-

ing them and exploring that process to see if perhaps there is a more fluid process, a de facto process in the absence of objections for example, that might be something worth looking at. So I mean, we are not at all closed because as technologists we are the ones always pushing the edge of the envelope and trying to find new ways to deliver content and give users access to their content on different devices, et cetera. So if anybody is sympathetic to that notion, it is the tech community.

So I just preach caution in that arena but I think that change is certainly possible if done in a very targeted way.

Mr. ISSA. Okay. Any last comments, please?

Mr. RICHERT. Am I on?

There we go.

Mr. ISSA. Yes.

Mr. RICHERT. Thank you so much.

You mentioned, sir, that the notion that folks are blind or visually impaired have really only one recourse right now and that is to reach for the circumvention 1201 exemption process. I would just submit to the Committee that there is another way. There is another way right now where we can achieve some of this work. And that is if rights owners ensure the accessibility of the stuff that they make available.

When we first went to the Copyright Office, we went because we experienced a widespread problem, namely that folks who were blind or visually impaired were acquiring eBooks, downloading them, purchasing them just like everybody else, attempted to read them and they would in fact most of the time not get any kind of message at all pulling it up on their gizmo, their computer or other device. They simply wouldn't be able to read them. But in some instances they actually received messages that said this eBook has been disabled for purposes of a screen reader used by the blind and visually impaired. And we submitted copies of this material to the Copyright Office as part of our submissions. And what I think that that illustrates is that we wouldn't have initiated, I don't believe, our efforts almost, what is it now 12, 11 years ago, to pursue these exemptions if the underlying works we are talking about were made accessible.

So that is why we have been suggesting that sort of an overall approach to copyright reform makes sense because in our view the notion of, you know, ensuring the limited monopoly of owners for the purpose of promoting the progress of science and the useful arts surely means, at a minimum, that all people, particularly folks with disabilities, can use the things that other folks can use if the underlying work, the eBook, the movie, the video that doesn't include captioning for folks who are deaf, or description for folks who are blind or the app that may not be optimized for the technology that currently exists to allow folks with disabilities to use it; if that material is accessible then I would welcome a discussion that talks about sort of a presumption that indeed these materials are accessible and exemptions may not necessarily be used. Obviously that is difficult to do across——

Mr. MARINO. Mr. Richert, could you wrap up your answer please?

Mr. RICHERT. And here I thought I built up credit with my opening statement. [Laughter.]

Mr. MARINO. You did. You have——

Mr. RICHERT. I will stop there and—into my next monopoly.

Mr. ISSA. Mr. Chairman, I appreciate the excess time and I certainly think that the time was well spent to realize that there are none so blind as those who will not see the needs and desire of their customers and answer it. But hopefully we did shed some light on it today. Thank you.

Mr. MARINO. Thank you.

Thank you, Mr. Richert.

The Chair now recognizes the distinguished woman from California, Dr. Chu.

Ms. CHU. Thank you, Mr. Chair.

I would like to submit for the record a written statement from the Copyright Alliance which describes the numerous ways in which content owners like film makers and musical artists use TPMs to provide new experiences to users and at the same time protect their works.

Mr. MARINO. Without objection, so admitted.

[The information referred to follows:]

Statement For The Record of Sandra Aistars,
Chief Executive Officer, Copyright Alliance

Before The House Judiciary Committee
Subcommittee On Courts, Intellectual Property And The Internet

Chapter 12 of Title 17

September 17, 2014

The Copyright Alliance is a non-profit, non-partisan organization that unites creative people from a variety of disciplines and advocates for the protection of their creative work. We represent artists and creators across the spectrum of copyright disciplines, including more than 40 trade associations companies and guilds, and over 15,000 individual artists and creators. All of our members depend on the ability to set the terms and conditions on which their creative work is distributed and/or monetized, subject to legal exceptions, in order to make work available to audiences via a variety of usage models and over a vast network of platforms and formats. Technical Protection Mechanisms ("TPMs") facilitate the seamless operation of these offerings, and allow for a variety of different usage models to exist in the marketplace to suit varied consumer interests and preferences.

We welcome this opportunity to share with the Subcommittee a variety of examples of how our members use TPMs to offer audiences new experiences such as the opportunity to:

- play pre-release video games,
- acquire updates, add new features and interact with other users of entertainment products,
- share creative works with others,
- convert works purchased in earlier formats to state of the art formats, and
- license clips for new uses, create custom content and playlists.

We additionally highlight two examples of TPM enabled distribution models identified as being of particular benefit by our grassroots members:

- a TPM enabled distribution service launched by an independent film distributor that allows fans of the films to share in the revenues of sales/streams of films the fan refers to the distributor, and

- a TPM enabled music service that many independent bands enjoy working with due to the flexibility it affords them in offering work to their audiences.

We encourage the Subcommittee to ensure that the provisions of Section 1201 of the Digital Millennium Copyright Act remain strong. These provisions have served authors and audiences of creative works well by ushering in a vast variety of both new work and innumerable new technology platforms for distributing creative works in innovative ways.

How Independent Artists are Using TPM Enabled Platforms

The use of TPM enabled platforms to deliver creative works to audiences by new and mainstream media companies is well documented. Less well described are the many innovative ways independent artists employ TPM enabled platforms to engage with and reward their fans, reach new audiences, and experiment with new business models. We highlight two such approaches here.

Using TPM Enabled Platforms To Reward Fans

Indie filmmakers and distributors are using TPM enabled platforms not just to distribute films to audiences in a variety of new offerings, but to reward fans who spread news about the films through their social networks resulting in referrals and purchases of films. Wolfe Video is a small, independent film distribution company that has adopted a unique two-pronged approach to combatting the challenges of online infringement. In addition to employing TPMs to protect the films the company distributes, Wolfe began an affiliate program that allows users to share links to Wolfe distributed films via social networks and earn commissions on resulting sales. Fans who wish to participate in the program sign up as "affiliates." Each affiliate is assigned a unique identifying code, which is automatically included when a link to a film is embedded or shared by the fan via social media or otherwise. Any purchases of streams or DVDs or BluRays resulting from a referral from the affiliate earns a 10% commission for the affiliate. Deployed in this manner, TPM enabled platforms facilitate not just new engagement and new social interaction among fans of films, but the return of financial rewards to fans who refer customers to the legal distribution sources of films.

Using TPMs to Manage an Indie Band Catalog

Independent artists, like other artists, make decisions about how to manage the distribution of their work to maximize exposure, improve revenue, support causes and organizations they believe in, reward fans, and achieve a variety of other goals. Platforms and services that flexibly employ TPMs and allow artists to determine when to use them and when not to use them facilitate the effective management of catalogs of creative works for these purposes. Our grassroots members in the music industry report that several music licensing and distribution services including CD Baby, ReverbNation and TuneCore allow artists to pick and choose among the platforms to which an artist wishes to distribute his or her work. Artists may choose to distribute to TPM enabled download platforms, or choose MP3 and streaming platforms that do not apply TPMs. Different decisions can be

made for different albums, depending on the artist's goals for the release. Services such as download cards & codes are also offered.

Other Examples of TPM-Enabled Innovations from Members of The Copyright Alliance

A. Entertainment Software

In the case of video games, TPMs enable the distribution of digital content through physical media, downloadable files, and live streaming, while preventing individuals from making and distributing unauthorized copies or using gaming consoles to play pirated copies of the games.[1] In addition, access controls have also facilitated the transformation of game consoles into general purpose entertainment portals.[2] TPMs ensure an environment in which only authorized copies of video games are playable on the console and, in so doing, cut off incentives to infringe the copyrights in those games. TPMs are also essential to maintaining brand names as they ensure both system security and quality control.[3]

Microsoft's Xbox Live. This service enables consumers to download games, acquire updates, new features and new content for existing games, store games in the cloud and access them at a location of their choosing. Consumers can also share their experiences with their families.[4]

PlayStation Network & Consoles – The PlayStation Network is a free service available to all PlayStation 3, 4, Portable and Vita console users. The service provides access to free online multiplayer gaming, downloadable game content, access to thousands of HD movies and millions of songs, as well as social interaction in a variety of virtual environments. In addition, PlayStation consoles allow consumers to play Blu-ray games and movies, as well as access the Sony Entertainment Network, which includes a global catalog of over 10 million copyrighted music tracks; SD, HD and 3D videos, including movies from every major studio; streaming audio and video content from providers such as Pandora, NPR, Hulu Plus, Netflix, Amazon Prime and MLB.tv; images and related services from Picasa, Photobucket, and Shutterfly; and content from services such as Twitter and Yahoo!

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[1] *See* ENTERTAINMENT SOFTWARE ASSOCIATION, COMMENTS SUBMITTED BEFORE THE U.S. COPYRIGHT OFFICE ON THE EXEMPTION TO PROHIBITION ON CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS FOR ACCESS CONTROL TECHNOLOGIES 3, (Docket No. RM 2011-7, 2012), *available at* http://copyright.gov/1201/2012/comments/Lindsey_Tonsager.pdf.

[2] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., JOINT COMMENTS SUBMITTED BEFORE THE U.S. COPYRIGHT OFFICE ON THE EXEMPTION TO PROHIBITION ON CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS FOR ACCESS CONTROL TECHNOLOGIES 9, (Docket No. RM 2011-7, 2012), *available at* http://copyright.gov/1201/2012/comments/Steven_J._Metalitz.pdf

[3] *See* SONY COMPUTER ENTERTAINMENT AMERICA LLC, COMMENTS SUBMITTED BEFORE THE U.S. COPYRIGHT OFFICE ON THE EXEMPTION TO PROHIBITION ON CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS FOR ACCESS CONTROL TECHNOLOGIES 11, 12, (Docket No. RM 2011-7, 2012), *available at* http://copyright.gov/1201/2012/comments/Jeffrey_P._Cunard.pdf

[4] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 9.

Similarly, Nintendo enables console owners to access online content using their Wii.[5]

Valve Corp.'s Steam – Steam offers consumers online access to over 1,000 game titles with instant software updates. Gamers can even enjoy pre-release titles and periods of promotional play at no cost.[6]

B. Literary Works

The marketplace for ebooks and audiobooks has expanded quickly as a result of the proliferation of devices such as Amazon's Kindle, Apple's iPad, iPod and iPhone, Barnes & Noble's Nook, Apple's iPad, and a variety of other tablets.[7]

Random House's Insight & Harper Collins' Browse – These services enable web developers to interoperate with Random House's and Harper Collins' libraries to enable the public to browse books before buying them or search for text or audio content based on terms or subjects. [8]

International Non-Commercial Document Supply Service – Since January 2012, publishers and the British Library began offering a cross-border service to improve access. The framework enables publishers and libraries to cooperatively provide copyrighted journal articles to the libraries' users, such as students, faculty and researchers, for non-commercial research or private study. [9]

C. Motion Pictures and Television Programs

UltraViolet – Developed by the Digital Entertainment Content Ecosystem, a consortium of more than seventy companies, UltraViolet is a cloud-based service designed to allow consumers to purchase, acquire and reacquire content from participating retailers and then watch it on a wide array of compatible devices. Because UltraViolet is designed with families in mind, the service allows accounts with multiple users. Once an account is created, any authenticated user can go to a participating retailer and obtain UltraViolet-enabled content; once in the account, multiple copies of that UltraViolet-enabled content are available (subject to certain restrictions, e.g., parental controls) to any authenticated user to view on multiple platforms and displays, including on television screens (with or without a DVD or Blu-Ray player), desktop computers, laptop computers, tablets, and smartphones. A further benefit is that UltraViolet enables multiple methods of content delivery: streaming, download, and physical formats (e.g., DVD or Blu-ray). UltraViolet also enables consumers to convert titles they previously purchased on DVD and Blu-Ray into

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[5] *See id.* at 9, 10; SONY COMPUTER ENTERTAINMENT AMERICA LLC, *supra* note 3, at 7.
[6] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 10.
[7] *See id.* at 10.
[8] *See id.* at 10, 11.
[9] *See id.* at 11; *see also* BRITISH LIBRARY, Document Supply Services, http://www.bl.uk/incd (last visited Sep. 15, 2014).

UltraViolet-enabled content.[10]

"TV Everywhere" Initiatives (Comcast's XFINITY website and mobile apps, DISH Network's DISHOnline, and Verizon's FiOS TV Online) – Member companies of the Motion Picture Association of America and other content owners, in conjunction with multichannel video programming distributors ("MVPDs") offer unprecedented online on-demand access to movies and television programs as part of their cable/satellite television subscriptions. These services provide users with the ability to access televised content on their Internet connected devices. Some MVPDs allow their customers to view certain live television channels within the home via applications for mobile devices. This complements the existing access by subscribers to significant numbers of shows and movies, often in high-definition, on their television sets at a time of their choosing via video on demand. In addition to access offered by portals managed by MVPDs as described above, a growing number of cable networks, including HBO, CNN, Cartoon Network, TBS, Cinemax, Showtime, ESPN, The Disney Channel and the Big Ten Network provide access directly to subscribers via branded content portals. In addition to cable networks, many broadcast television networks allow the general public to view popular television programming online on the networks' websites at no cost. In addition to authenticated "TV Everywhere" services, most popular movie and television content is available on mobile phones and tablet computers through subscription models and one-time payments. Services include Apple's iTunes, Hulu Plus, Amazon Prime, and AT&T U-verse Live TV.[11]

Disney Movies Anywhere – This service, provided through an app, allows consumers to browse and watch their collection of Disney, Pixar, and Marvel movies along with bonus material and exclusive videos. Consumers can also download and stream movies across their devices.[12]

Apple's iTunes – This system allows consumers to purchase or rent movie and television programming content for playback on a variety of Apple and non-Apple devices. Apple's system allows multiple devices to have copies of the same content, giving flexibility for consumers to use a single purchase or rental. [13]

Kindle Fire – This service makes available thousands of movie and television titles to Fire owners. The content is also available for use on other devices through applications.[14]

Apps – Android devices also have networks of content available, both through the Android

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[10] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 11, 12.
[11] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 12, 13.
[12] *See* DISNEY MOVIES ANYWHERE, http://www.disneymoviesanywhere.com/support (last visited Sep. 15, 2014); *see also* ADVANCED ACCESS CONTENT SYSTEM LICENSING ADMINISTRATOR, LLC, COMMENTS SUBMITTED BEFORE THE U.S. COPYRIGHT OFFICE ON THE EXEMPTION TO PROHIBITION ON CIRCUMVENTION OF COPYRIGHT PROTECTION SYSTEMS FOR ACCESS CONTROL TECHNOLOGIES 5, Docket No. RM 2011-7 (2012), available at http://copyright.gov/1201/2012/comments/Bruce_H._Turnbull.pdf.
[13] *See* ADVANCED ACCESS CONTENT SYSTEM LICENSING ADMINISTRATOR, LLC, *supra* note 12, at 6.
[14] *See id.*

Market and through use of applications that give consumers access to content on a variety of other distribution networks. Microsoft has its own platforms, taking advantage of its game console as a hub for content delivery as well as enabling Microsoft-based smartphones and computers.[15]

Anyclip.com – On this site, users are able to search an online library, which as of December 2011 included access to over 12,000 films and over 50,000 clips. The site allows users to compile clips into playlists (as a professor might wish to do for classroom use) and access the library with any API to incorporate clips into an application that the user is developing.[16]

Online clip licensing – For uses where licensing from the content owner is appropriate, motion picture companies have moved much of their clip licensing to an online system. This is intended to simplify and shorten the licensing process. In some cases, the entire transaction can be completed online, including searching the studio's movies for the clip that is desired, putting clips into an online cart along with details of the proposed use of the clips. After the prospective user checks out using the site, the studio reviews the request and, if the studio agrees to the license, responds with a link to the desired clip. [17]

Other services facilitated by TPMs include: Flixter, Amazon (Instant Video and Prime), Hulu and Hulu Plus, Microsoft Zune/Xbox, Netflix, Android Market, Vudu, Redbox, BD sales, DVD sales.

D. Music

iTunes Match. Since 2011, this service enables consumers to access purchased music on a variety of devices and at a variety of locations. For a low annual rate, the service even allows consumers to access, online, music purchased on CDs rather than through iTunes.[18]

Spotify. Since 2011, Spotify offers users a vast library of recorded music, available for ondemand streaming. Spotify also enables creative methods of sharing music with friends. The service is offered in free advertising supported form, or by multiple subscription models. In 2014, Spotify reported 3 million paid subscribers in the U.S.[19]

Muve Music. This service allows users to download millions of songs directly to a mobile handset from anywhere, with unlimited music downloads included in the user's rate plan.

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[15] *See id.*
[16] *See id.* at 8.
[17] *See id.* at 9; *see also* www.universalclips.com for an example of this type of service.
[18] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 14; *see also* APPLE ITUNES MATCH, https://www.apple.com/itunes/itunes-match/ (last visited Sep. 15, 2014).
[19] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 14; *see also* Yinka Adegoke, *Spotify Now Has 10 Million Paid Subscribers, 3 Million In U.S. (Exclusive)*, BILLBOARD (May 21, 2014, 8:00 AM), http://www.billboard.com/biz/articles/news/digital-and-mobile/6092226/spotify-now-has-10-million-paid-subscribers-3-million.

The service includes songs from Universal Music Group, Warner Music Group, Sony Music Entertainment and EMI Music. Muve also allows users to create their own ringtones, ringback tones and playlists.[20]

E. Operating Systems and Software Distribution Platforms

App stores – Apple's App Store, Google's Android Market, Microsoft's Windows Phone Marketplace, Amazon's Appstore, RIM's BlackBerry App World, and others provide users with a centralized place to locate and acquire software applications for their device. Developers – professional and amateur alike – have created over a million different apps for mobile devices in less than four years. App stores cover both mobile and desktop operating systems.[21]

Security upgrades— Thanks to access controls, virtually all commercial software applications can be accessed, downloaded and/or updated online, whether directly from the developer or through third parties.[22]

Cloud computing –As software is increasingly downloaded for use or delivered as online services in the future, the importance of keys, IDs and passwords in enabling these services while protecting software copyright holders' rights increases accordingly.[23]

The breadth and variety of services enabled by TPMs and unique experiences offered to consumers as a result demonstrate the beneficial effect the anti-circumvention provisions in section 1201 have had on the development of the digital market for entertainment products both among independent creators and major copyright owners/distributors. We urge the Subcommittee to ensure these provisions of the Digital Millennium Copyright Act continue to serve these goals.

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[20] *See* CRICKET WIRELESS, https://www.cricketwireless.com/o/support/apps-and-services/muve-music/muve-music.html (last visited Sep. 15, 2014); *see also* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 14.
[21] *See* ASSOCIATION OF AMERICAN PUBLISHERS ET AL., *supra* note 2, at 15.
[22] *See id.*
[23] *See id.* at 15, 16.

Ms. CHU. Thank you.

Mr. Genetski, from your testimony, I understand that TPMs or technological protection measures have certainly impacted piracy rates in the video game industry and there is an interesting story to tell when you look at piracy rates among the various platforms available to users. You called out some distinctions between games placed on a personal computer which does not use TPMs and the traditional game console which can and does use TPMs.

Could you tell us about how the rate of piracy differs among these two platforms and how does the industry combat infringing use relative to the availability or non-availability of TPMs on a specific platform?

Mr. GENETSKI. Yes. Thank you, Congresswoman.

The rates historically have been and currently are, you know, on the order of 80 to 85 percent higher for PC game titles than they are for consoles. And in many cases these are the same game titles being produced for both platforms. If you go to sites that cater to infringing downloads, one of the most popular 29 out of the 30 titles of the top 30 titles are PC titles.

I think the more compelling part of the story perhaps is the response by the game industry to that reality which I alluded to earlier which is to find a way to reinvent that market relying on recognizing that issue and then trying to employ TPMs in a manner to grow that market. And that is primarily occurred with, again, advances in the infrastructure and the architecture allowing online play. So you have got millions of users around the world all connected on thousands of servers that are distributed across the world and they are interacting online and playing and TPMs are regulating access to that world.

And it is important because, for that world to be fun and engaging for the millions of consumers who want to play the game in a legitimate way, often for free, paying only for the content that they want to pay for which again is also protected by TPMs, you have to be able to create some rule sets and only let in the folks who want to play according to those rules and not those who would run spyware and phishing attacks and cheats and hacks that distribute the—that small subset that would disrupt the experience for the majority. And TPMs with the rule of law and the DMCA behind them have played a critical role in nurturing that development.

Ms. CHU. Thank you.

Now I understand that the industry will likely find new innovative ways to deliver gaming content to its users as technology advances whether it is storing content in the cloud or allowing for streaming to consoles, which is also done by other industries like film and music to deliver content to its customers. What role do TPMs play in how content owners determine whether they should pursue and make available these methods for accessing content? And what role does the triennial review process play?

Mr. GENETSKI. I think again, building off my prior answer, probably easy to give one tangible example. So there is an online digital gaming service called Steam which is produced by a company called Valve; ESA member, Electronic Arts has its own digital gaming platform called Origin. Those platforms are designed to allow users to purchase digital content often at lower prices. EA's service

has a feature called Game Time which I alluded to earlier, which is you get a 48-hour window to try a game. It is a lawful means to try it if you like it because you often hear in the piracy debate that people are downloading an infringing version because they want to try it before they buy it. So we have tried to eliminate the need to do that for those who want to do it lawfully. These are the kinds of uses but of course you have to have a TPM. So when the 48 hours expires, you are able to pull the content back.

So these are some of the examples. And Steam is viewed as a very pro-consumer, very nonrestrictive service. And it is viewed that way because the TPMs it uses are sort of the backbone for the ability to have account-based services and the ability to store all your digital games in one library. And there is very few restrictions once you have purchased them. But the entire architecture behind the scenes enables that pro-consumer platform.

Ms. CHU. And finally, how about our international obligations with regard Section 1201? For instance, treaties.

Mr. GENETSKI. So with the WIPO Internet Treaty of course was of course one of the motivating factors behind the enactment of the DMCA. That treaty requires that we have effective and adequate remedies against circumvention, certainly in compliance with those. We have subsequently entered free trade agreements with a number of countries, Korea, Australia among them, that are more specifically tied to the provisions that are in 1201 now. Certainly the repeal or some of their proposals that would roll back the current prohibitions to a place where their adequacy and effectiveness would be called into question would potentially be in conflict with those agreements.

Ms. CHU. Thank you. I yield back.

Mr. MARINO. Thank you.

The Chair recognizes the distinguished gentleman from Texas, Congressman Farenthold.

Mr. FARENTHOLD. Thank you very much.

And I want to start visiting with Ms. McSherry, proud EFF member for 15-plus years. Twenty-five dollars a year is well spent on your salary I think. I wanted to visit a little bit about where this could potentially go. You know, traditionally patent law has protected things and copyright has protected artistic type works. But now, more and more things have software in them and you are licensing that software when you purchase a thing.

For instance, the operating system on your telephone or the firmware on a piece of hardware or, for your example, you know the garage door openers. Do you see the possibility of being able to draw some sort of distinction with respect to copyright of, you know, say software that is an integral part of a thing as opposed to say an add-on app you would put on the telephone?

Traditionally, you have been able to buy a thing and do with it what you want, but with some of these licensing agreements you can't do with it what you want. I mean, taken to an extreme, let us say I bought a car and the car company decided that they were only going to license the original purchaser the software embedded in the car and they use something like OnStar to turn it off if they find out you sell the car. Can we draw a distinction between things

and maybe look at coming up with some exception for embedded software?

Ms. MCSHERRY. Thank you for the question and it is a very good one and it is one of the reasons that we are actually most concerned about 1201 going forward. We have this long collection of unintended consequences where we have seen 1201 used in all kinds of unexpected ways. And we think, unfortunately, the problem is only going to get worse. Your car example actually isn't all that extreme. I have been contacted by folks who want to modify their cars and, I mean, people have been tinkering——

Mr. FARENTHOLD. Where is Mr. Issa going? [Laughter.]

Ms. MCSHERRY. People have been tinkering with their cars in the United States since we have had cars; right? But more and more part of what is making cars work better is software. We have software embedded in our cars as we have in our refrigerators and our toasters and our many other things. But that software is often going to come accompanied by license agreements, as you say, and TPMs that are going to inhibit folks' ability to modify those products that they thought that they were buying to repair them, they can be used to lock folks down to one repair option, and that is something that unfortunately is all too common.

So it is actually a real problem. License agreements are a problem because, of course, when you might buy an object but you are only licensing the software inside of it. And that license might come with all kinds of restrictions that you don't know about because you never read it. But, in addition, bringing it back to the main focus here, may come locked down by technological protection measures that will inhibit your ability to—and not just repair and recycle the things you buy but also test it for security risks which is, I think, extremely important. One of the things that I have been hearing so far today is folks talking a lot about how important DRM can be.

Mr. FARENTHOLD. I'm running out of time. I have only got 5 minutes. I got a couple other—I don't mean to cut you off, but I wanted to talk to Mr. Zuck for a second.

You hinted that courts have upheld traditional exceptions like fair use and then you cited that as an example things are going well. But moving through the court system is slow and expensive. How can we streamline the process to where legitimate things that have, you know, fair use, reverse engineering that have historically been recognized through copyright are allowed without having to resort to expensive and long-term litigation or waiting for the triennial rulemaking process?

Mr. ZUCK. Thank you for the question, and I guess I'll say that while the judicial process is slow it is also inevitable at the beginning of the life of a law. And that most of the examples are, in fact, old and that because established precedents are now in place that have in fact made people less fearful about the implications of hacking and modifications. If you look at the attendance list at a DEF CON or a Black Hat conference, hacking is alive and well today. People are modifying things all the time.

So I mean I think it is a mistake to think of that as a rule rather than the exception in current times. Now are there opportunities to refine the process by which exemptions are granted or renewed?

I certain believe that that is the case and that we can find ways to streamline that process and make it work better because no law is perfect. But I think it is a mistake to look at our experience of DMCA as a whole and regard it as problematic rather than a success because the numbers just simply don't support that.

Mr. FARENTHOLD. All right. Thank you. I see my time is expired. Thank you, Mr. Chairman.

Mr. MARINO. Thank you.

The Chair recognizes the distinguished gentleman from Florida, Congressman Deutch.

Mr. DEUTCH. Thank you, Mr. Chairman.

Mr. Zuck, can you just continue that specifically what changes would you make to Section 1201?

Mr. ZUCK. I'm sorry, I didn't hear you.

Mr. DEUTCH. Specifically, what changes would you make? How would you amend it?

Mr. ZUCK. I guess I am not prepared to make a specific proposal. I certainly think that the renewal process of an exemption is something that could be modified and streamlined especially when there are no objections to that renewal which is very often the case. You know, that there weren't any objections filed by the copyright owners. And so I think in that particular case it should be easier. But again, I believe that the cumbersome nature of the process has been the exception and not the rule.

As we have both testified, most of these systems that are in place are seamless and adored by consumers for the benefits that they provide.

Mr. DEUTCH. Right. So that is where I am stuck. Ms. McSherry, you—I think we all agree that the Copyright Office made the wrong call on cellphones. But you have said that this doesn't—1201 and doesn't deter copyright infringement, that it inhibits the ability to innovate and that there is one in particular. I just want to make sure I understood. Acts of circumvention, you said, we should only worry where there is an intent to violate copyright. Is that your approach?

I think I heard you say that. I just want to make sure.

Ms. MCSHERRY. Yes, that is correct. If someone is engaging in circumvention or creating tools for circumvention that are designed to facilitate copyright infringement as opposed to entirely non-infringing uses. That is the distinction.

Mr. DEUTCH. Well no, no, no. There is obviously a difference between non-infringing uses and whether someone intended to violate. There are, you would agree obviously, that there are cases where a copyright may be violated, someone was unaware. But the copyright holder is still protected; right? Should the only people who violate copyright laws, should the law only apply in those cases where violators of copyright law is intended to violate?

Ms. MCSHERRY. I think the law should only be applied where there is a tie to actual copyright infringement.

Mr. DEUTCH. Whether it was intended or not?

Ms. MCSHERRY. Well, I think the way to get around that is to look whether the tools——

Mr. DEUTCH. I am not trying to get around anything.

Ms. MCSHERRY. I know, I am trying to speak to that, your honor—I am sorry. Habit. Mr. Congressman. If someone is designing a tool in good faith, not intending for it to be used for copyright infringement and it happens to be, I don't think that should be a 1201 violation. So we can look at good faith.

Mr. DEUTCH. But you would repeal 1201 altogether?

Ms. MCSHERRY. If I had my druthers, yes. Yes, I would.

Mr. DEUTCH. And because it doesn't innovate; it hasn't led to any innovation. But we have sat here and heard example after example after example of how it has contributed to innovation. Where do you dispute? Mr. Genetski laid out, and I thought fairly exhaustive fashion, all of the ways that there has been ability to innovate, that has benefited consumers, that has benefited gamers, that has benefited the economy. Do you dispute everything he said? I am trying to make sense of the conflicting testimony.

Ms. MCSHERRY. Sure.

So, two points. When we look at 1201, we look at it as a cost benefit analysis. And the reason that we advocate scuttling altogether if we can is we don't think the cost benefit analysis works out. Secondly——

Mr. DEUTCH. Hold on, but that is what I want to focus on.

Ms. MCSHERRY. Yes.

Mr. DEUTCH. Obviously, your testimony also says that no matter what we do there is always going to be copyright infringement. It essentially says pirates are going to be pirates. Why do we even bother worrying about them? That is essentially the argument that you make. And in doing your cost benefit analysis, I just, I would ask you to address specifically the benefits that Mr. Genetski has laid out in some detail.

Ms. MCSHERRY. Sure. I am happy to do that.

So I think that what is happening here is we are conflating TPMs and 1201. So I think that Mr. Zuck and Mr. Genetski have argued for the benefits of TPMs. And that is a separate question. It may be that their view is that it has been beneficial in a variety of ways. I don't necessarily agree, but we can leave that aside.

Mr. DEUTCH. I know but I asked you—I'm sorry.

Ms. MCSHERRY. My issue with 1201 is about——

Mr. DEUTCH. But I am asking, no, no. But I am asking, we listen to the testimony and we have to make these determinations. So when you make a statement that 1201 should go away, I would ask you to also, you listened to Mr. Genetski testimony——

Ms. MCSHERRY. Sure.

Mr. DEUTCH. And you said there needs to be a cost benefit analysis.

Ms. MCSHERRY. Right.

Mr. DEUTCH. Do you acknowledge the benefits that he has described? That is all I am asking.

Ms. MCSHERRY. Thank you.

What I am trying to stay is that I do not think the cost benefit analysis of 1201 as a backstop to the TPMs works out. Now whether there is a cost benefit analysis with respect to TPMs on their own, that is a different question. 1201 is a penalty in addition; right? And the problem with 1201 is that it has inhibited things

like security testing which is all the more important with the proliferation of DRM.

Mr. DEUTCH. Right.

Mr. Genetski, just in my last—just to wrap up. That list that you presented, I don't need to ask you to go through it again, but it was a fairly long list of benefits that have accrued as a result of this language; correct?

Mr. GENETSKI. Yes, that is correct, Congressman.

Mr. DEUTCH. Thanks.

Thanks, Mr. Chairman. I yield back.

Mr. MARINO. Okay. The Chair now recognizes the distinguished gentleman from North Carolina, Congressman Holding.

Mr. HOLDING. Thank you, Mr. Chairman.

Mr. Genetski and Mr. Zuck, I am going to give you a minute or so just to respond to Ms. McSherry's distinction between 1201 and TPMs and the cost benefit analysis. Mr. Genetski, if you could proceed with that.

Mr. GENETSKI. Sure. Thank you, Congressman.

I understand the distinguishing point she is trying to make and let us be frank. The use TPMs that I have described is a sound business choice. Part of the impetus is to deliver a consumer's content in the ways that they want to experience and use it and where they will come back and continue to be repeat customers.

That said, the DMCA plays a critical role and has historically the way laws always do in establishing as the normative behavior. People understand that it is unlawful to hack these TPMs. They understand that you can't circumvent the access controls to gain access to an online game, an online universe. And where technology fails, and inevitably in our experience technology always at some point appears to fail, having the law as a backstop to understand for the benefit of the vast majority of users who want to experience the content lawfully and appreciate the bargain and the choice to do so; that that experience isn't ruined by the small group who would prefer to get their enjoyment out of frustrating the experience for everyone else.

Mr. HOLDING. Mr. Zuck, do you want to weigh in?

Mr. ZUCK. Thank you, Congressman.

And again, I would have to agree that TPMs have played a major role in the right apps getting into the hands of the right customers. It has been critical to the success of that industry. And again, I think that the cost benefit analysis of the backstop, as it has been put, has also shown up as well. Again we are talking about the exceptions, and if you look at security researchers, for example, or bugs et cetera; I mean the Heartbleed bug, for example, was in an open source software, and it was missed for ages and ages despite the fact that there were no technical measures in place. So the idea that somehow keeping something under some technical protection measure leads to more bugs or makes it harder to find them, it just doesn't hold water.

So again, if we do a cost benefit analysis, there is no comparison between the benefits of it that have been accrued as a result of both the technical protection measures and the laws that protect them and some of the exceptions that have happened along the way that we are all, I think, at the table to try and address.

Mr. HOLDING. Mr. Genetski, you have said that the 201, that if you were eroding the protections afforded by 201 it would embolden and encourage those who seek to pirate content online. Give me an idea of the market share of pirated content; what you are facing and how you think that would increase if you eroded 1201?

Mr. GENETSKI. Thank you, Congressman.

I think the game console example is probably the best one to answer this question. I alluded earlier to the game console platform TPMs reducing in scope, relatively, the amount of piracy that takes place on that platform as opposed to the PC platform. It still exists.

And in the context of the last rulemaking process, there was a proposed exemption by EFF to allow circumvention of game consoles and it was limited on its face for non-infringing uses only in fairness. However, what we put forward and what the record showed in that case was the community of users that would use the tools to circumvent those protections, basically they broke the lock. And once the lock is broken there is no fixing it. And that one lock is what prevents the playback of pirated content. It may also allow for some sliver of a non-infringing use for a researcher to just examine the code for hobbyist purposes.

Mr. HOLDING. All right. Let me interrupt you.

Mr. GENETSKI. Sure.

Mr. HOLDING. Do you know how much money you are losing due to pirated content?

Mr. GENETSKI. It is extremely difficult to quantify but we certainly have an active internet monitoring and takedown program at ESA where we are, you know, identifying the hundreds of thousands of infringements monthly on the top, just the top 15, 20 sites that cater to that activity. So it remains a significant problem.

Mr. HOLDING. Okay. Mr. Chairman, I yield back.

Mr. MARINO. Thank you.

The Chair recognizes the distinguished gentleman from Florida——

Mr. JEFFRIES. New York.

Mr. MARINO. New York, I am sorry. Congressman Jeffries.

Mr. JEFFRIES. Okay. Thank the Chair. I thank the witnesses for their presence and for their illuminating testimony here today. Let me start with Mr. Richert.

I just want to discuss some of the concerns you have articulated about the triennial rulemaking process. So in the context of this process, I gather your organization, as well as affiliated organizations, have essentially been through the process four times over the last decade or so. Is that correct?

And in your view, Section 1201 forced your organization to strain resources limited in nature that were being expended essentially to vindicate a civil right with respect to access of the visually impaired to digital material that had already been established. Is that right?

Mr. RICHERT. That is fair.

Mr. JEFFRIES. So you support reform of the process in the instance of, you know, so-called noncontroversial exemptions. Is that right?

Mr. RICHERT. I am having fun with this microphone device.

The short answer is yes. We would support comprehensive top-down approach that looks at the whole copyright structure to improve accessibility of all copyrighted works. And specifically for 1201, we would join our colleagues who have recommended specific reforms, and I would be glad to talk about some of those if you would like.

Mr. JEFFRIES. Yes, certainly. And I want to get into that now. And I am interested in this notion of how one would define a noncontroversial exemption. It seems, in some instances, easier said than done particularly around this place. I mean, XM banks reauthorization was not controversial before it was controversial. You know, spending on transportation and infrastructure, noncontroversial for decades until it became controversial.

How would you define what essentially is a noncontroversial exemption? Would it be based on the lack of objections? Would it be based on repeated reauthorization? Is it some combination?

Mr. RICHERT. It is an excellent question. I don't know that noncontroversial is the best adjective or whatever part of speech that happens to be to what we are trying to achieve. I think it is interesting really. People often think about the disabilities issues and the accessibility issues as being like motherhood and apple pie until, of course, it comes to signing on the dotted line about actually getting legislation or regulations or something else through. And then, for some reason, it becomes a very controversial issue, I think, because most people want to support folks with disabilities and that is great.

I think really what we are talking about is frankly when someone can make a case that the use is fair. And there is legislation pending before the Congress that sort of wrestles with that. We have talked about that notion in papers that we have put out that really what we are talking about here is if you are talking about a use that has been traditionally recognized as being fair; I can't speak to other uses. That's not what I am here for. For folks with disabilities pretty clear that the fair use has always been consistently recognized for folks with disabilities when you are rendering some work of authorship in a way that someone with a disability can use. That seems like a no-brainer, to use the technical legal term.

Mr. JEFFRIES. Thank you. Let me move on but I appreciate your observations on that just in the interest of time.

Mr. RICHERT. Yes.

Mr. JEFFRIES. Mr. Genetski, I agree with the premise that the current framework certainly has allowed for innovation to thrive. I think that, you know, based on the tremendous growth in products that have been made available, not just in the gaming industry but in the wide range of industries over the last 10 or 15 years, suggests that innovation has not been suffocated by 1201. But I also think that perhaps some modification to the process is appropriate.

Currently there is a de novo review as it relates to the triennial review process. Do you think that in certain instances it will be reasonable to move away from a de novo review and for there to be, for instance, a presumption of reauthorization in instances

where an exemption had already previously been determined to be appropriate?

Mr. GENETSKI. Thank you, Congressman.

I think that the, in the current process, I think the policy considerations that form initial requests are properly balanced. I think that the initial burden of establishing a use that is being constrained, fair use that is being constrained, belongs with the proponent. I do think, however, that we do again, now several iterations through the cycle, I think you have landed on a point that we have seen reiterated a few times today where it does seem that in the case of exemptions for the case has already been made, and 3 years later there is not suggestion that anything has changed. The proponent has to come in and move for renewal there is no opposition—I think trying to define a noncontroversial case creates real line-drawing problems.

So I do think that if you are going to focus on a shift that the right focus is on the lack of opposition and reducing the burden where there is no opposition. Perhaps it is not in the de novo review, but in that the burden of persuasion would stay the same if there was an opposition. But in the absence of one, you would have an automatic renewal. I think these are the kinds of things that are definitely worthy of consideration.

Mr. JEFFRIES. Thank you.

Mr. MARINO. Gentleman yield back?

Mr. JEFFRIES. I yield back.

Mr. MARINO. Thank you.

The Chair recognizes the distinguished gentleman from Missouri, Congressman Smith.

Mr. SMITH OF MISSOURI. Thank you, Mr. Chairman.

Ms. McSherry, the 2011 exemptions you all sought for game consoles that you mentioned; what was the exemption?

Ms. MCSHERRY. It was the exemption to modify game consoles so that you could, for example, run an open source software system called Linux which researchers have been using around the country for a long time. You can basically turn your video game console into a computer that can run all kinds of application.

Mr. SMITH OF MISSOURI. Okay. What were the benefits you were trying to attain through those exemptions?

Ms. MCSHERRY. There is a related one as well. But just focusing on that one, what had happened is that there used to be video game consoles that you could modify to run Linux and many people relied on those for research purposes because they are less expensive than some other computers. But then the console design was changed so that you couldn't run the Linux anymore. And so—and protected by a DRM. But you could circumvent that relatively easily and convert your computer back to being used for research purposes and those are perfectly lawful reasons, perfectly lawful purposes. And so we sought an exemption for that.

There was a related ask for circumvention so people could run homebrew, they are called homebrew games, which is basically games that they developed themselves. And again, for completely personal, noncommercial uses.

Mr. SMITH OF MISSOURI. Did you see any downsides from those exemptions?

Ms. MCSHERRY. No, we didn't.

Mr. SMITH OF MISSOURI. Okay.

Mr. Genetski, would you like to respond to that question?

Mr. GENETSKI. Sure. So I think Corynne accurately stated the exemption that they sought which again was nominally limited to non-infringing uses like the ones she spoke of for the researchers. The record in the rulemaking established that the, in particular, the ability to run Linux on a game console as opposed to running it on a computer that in fact the adoption of that feature on that particular console was incredibly low until there was a publicly released hack that allowed you to circumvent that feature to open that up which was the same feature that protected the ability against playing pirated content. There was a much higher uptick of usage once that was opened up for piracy. We saw far more uses of the tool there.

And after it was removed, which was a piracy prevention measure, to remove that, that particular console manufacturer, the record wasn't granted authorization to be able to use that part of the system to bona fide security researchers who had asked them. So there was a, in a balancing of harms there, the view was there was very little actual harm in the case of the purported reason and a grave harm to opening up that door for what it would actually be used for, which would be to aid piracy.

Ms. MCSHERRY. I'm sorry. Can I just add one thing?

Mr. SMITH OF MISSOURI. Sure.

Ms. MCSHERRY. But it seems to me that that is a perfect example of where we wanted to distinguish between TPMs and 1201. That hack was publically released. It was already widely available. So all 1201 was doing was getting in the way of legitimate uses. Right, it didn't stop the TPM from being broken or distributed. All it did was inhibit legitimate users.

Mr. SMITH OF MISSOURI. Thank you, Mr. Chairman. I yield back.

Mr. MARINO. Thank you.

The Chair recognizes Mr. Collins, the distinguished gentleman from Georgia.

Mr. COLLINS. Thank you, Mr. Chairman. I appreciate it.

Let us continue this. I want to see this discussion. As most who have attended these, I have delved in deep. And one of the things that, looking at this, I have just an interesting problematic issue here with content of expression were growing, both, and the hyperbole that tends to get involved in this. Only if we stop this measure, we are shutting freedom of expression and speech and everything else.

And Ms. McSherry, frankly, there are some issues I think where you can point to maybe a chilling effect here or something that things are going on. What is amazing is and what was brought up earlier was that I read through your report and most of your document and cases are 5, 6, 8, 10 years old and in which a lot of these issues were found by the courts in your favor, in the way you were looking for; and have set precedent since then. That is the reason the court system exists; is to set precedent to say how can we react to this market and what is use and nonuse.

So I think the, you know, to simply say well these, you know, these are not working because we still have these going on, I think

maybe we will just go to we're the Judiciary Committee, let us just take robbery off the books. We just as well not do that because somebody is going to rob so, well, I guess it is just not working all that well. I mean, shoplifting. You know, whatever we want to talk about here.

I think there is a fine balance here. So let us continue this discussion. Let us have it in not a discussion of simply, we don't like 1201 and TPMs need to be fixed because they solve all our problems, but look at what has happened in the marketplace.

This is what I would like for the panel to discuss for a second: You made a comment just a second ago that there was this game console, Linux opened it up, the system, to possible piracy and uses of that when it was published but then you said the game console folks then came in and granted permission in limited ways to use this for the purpose there because it didn't infringe. Let us talk about how we do move forward.

If 1201 was just left as-is, there is at least some thought process here that yes, there are problems and yes, it falls through, but what are the ways the industry because in the end if you don't sell your product nobody cares. Okay. And believe me, hackers are growing and there is a whole area there. How can we look at this from a perspective of taking what is the marketplace and inventors, creators, generally looking at to move it toward a more user-friendly more consumer-friendly basis and I think there are plenty of examples out there. I would like to see what your step is. Give me the three to 5 year down the road. We are working within the restraints we have now. What if we didn't change it? What if we left 1201 as-is?

Ms. MCSHERRY. I think one of the problems is all the innovation that we don't even know that we are going to miss.

Mr. COLLINS. Stop right there.

Ms. MCSHERRY. Sure.

Mr. COLLINS. You are basically telling me what I don't know because we don't know, and I will give you that to an extent but that is not a very good answer when I am saying: What are we doing in the process now that are moving gaming companies; moving music industry; moving film industry to protect the content? You are not going to have people out here inventing new games being innovative, being innovative in software and content, if there is not a profit motive to it.

This is not a utopian society although there is a great TV show on now, Utopia. This is not Utopia. You would make these things to produce and make a—don't tell me what we don't know. I get that. I am a NASA fan; okay. We got more out of it than Tang; okay? We got that Internet and everything else. There is things we didn't know going in. But how are we using it now to benefit the consumer without the hyperbole of chilling everything else?

I am on your side more than you think here, but your answers are not going past the talking points.

Ms. MCSHERRY. So when you say using it, do you mean Section 1201 or TPMs?

Mr. COLLINS. Using the current system, how are we seeing ESA and others respond to consumer demands and consumer changes that we can work with and if the changes need to be made for not

only the consumer side but for the product side? That is what I am trying to get and a very friendly conversation on. How do we make it better under the current system?

Ms. MCSHERRY. I don't mean to be difficult. So we keep 1201 and then how do we make the marketplace better? Is that the question?

Mr. COLLINS. What are we seeing that the marketplace is responding to 1201? I think what we are missing here is you are so opposed to 1201. I am saying, what is actually happening in the system under 1201?

Ms. MCSHERRY. Okay. So let me tell you some things that are actually happening in the system under 1201. Independent repair people are very worried about whether going forward they are going to be able to stay in business as cars increasingly have software embedded within them that are wrapped in TPMs and also tied to license agreements that they may or may not be able to interact with that the manufacturer may not authorize them to interact with. That is just cars. There is a whole association of independent repair that are worried about this.

Mr. COLLINS. And I am very sympathetic to them and I have listened to them and we actually agree on many things. I guess what I am trying to get at here is consumer—we are missing the bottom line. And I always think about it because I represent over 700,000 people in my district of Georgia who I am concerned about. As their frustration rises with their independent, where they go and try to get somebody else besides the dealer to help work on cars as they always have, as that frustration rises, the pressure is going to be on the manufacturers to react to that in a positive way.

And I guess what I am trying to say is what are we doing that is positive in this situation and those problems are actually opportunities in this setup? You know, my time is gone. I think the issue here is much larger, is something we need to continue on because as long as we have the content, the providers and to those that want to make it better or change it, the marketplace itself is a great dose of medicine for this problem. And I think this is what we are seeing. And going back to old issues of a new law and saying, well, these are the chilling effects, do not take into account the marketplace and those who are providing this service.

I appreciate you all being here. We will definitely get into this more. Thank you for your answer. Mr. Chairman, I yield back.

Mr. MARINO. Gentleman yield back?

Mr. COLLINS. Yes Mr. Chair.

Mr. MARINO. All right, we are waiting. One other Member may have some questions. So as I said earlier, I reserved my questioning until last but we'll do that in the interest of giving the other Member some time to get here. But I am going to be very brief on this.

Dr. Chu did ask some questions concerning adequate legal protections concerning 1201 and I would like to ask you folks to expand on that but only from an international basis. We know we have a great deal of piracy taking place not only in the United States but even more so overseas; Russia and China are the leaders in stealing not only our software but other ideas and patents and trademarks and copyrights that we have here in the United States.

So from an international perspective, what will 1201 have, any impact or no impact, concerning the content of WIPO in the treaty? Do you understand my question? Okay. So whoever wants to start with this, please acknowledge.

Mr. Genetski?

Mr. GENETSKI. Yes, thank you, Mr. Chairman.

I can address that from my own experience. And starting, referring back to Congresswoman Chu's question about international obligations, the DMCA grew out of the WIPO internet treaties. And the U.S. has been a leader in, really, in exporting protection for circumvention, for acts of circumvention. And we have seen, through several iterations of trade agreements, putting obligations in place for other countries to adopt laws that track our own 1201. That does have a very important practical impact.

Prior to my time at ESA, I was in private practice. I represented a number of game publishers. I personally was involved in actions around the world on behalf of game publishers with local counsel in those jurisdictions where we were pursuing cases under the local version of 1201; which often carried those same sorts of provisions. So it is important we have a number of our members who are involved in different parts of the world in litigation. And so, the ability to have these remedies exported and used and create worldwide norms for what is clearly a global online marketplace is critical.

Mr. MARINO. Thank you. Anyone else?

Mr. Zuck?

Mr. ZUCK. Thank you, Congressman. I guess the other thing that has happened is that prices have fallen dramatically, particularly in our industry as well. So software that 10 years ago was $30 is now 99 cents. And so I think some of the incentives for piracy have decreased while at the same time some of the consumer benefits of technical protection measures have increased. So the fact that these technical protection measures help protect you from malware, for example, in the context of a curated store means that you have a better chance of exporting those protections, because rather than individually doing something like trying to jailbreak my phone so that I expose myself to malware, I am using cheap or freer apps, et cetera.

So again, I think the environment that is being created by the curated store is not only decreasing the incentives for pirates but also decreasing incentives for consumers to make use of pirated goods because they are cheaper and because the downside of malware is also addressed by those same technical protection measures.

Mr. MARINO. Thank you. Anyone else?

Ms. McSherry?

Ms. MCSHERRY. Just briefly.

I have to confess, I am a little bit skeptical as to whether exporting 1201 beyond our shores has been all the effective given that, again, we have already got copyright penalties in place. This is just an additional penalty and I do not think that the evidence which suggests that it is actually deterring any actual piracy.

And the only other point I would make is I worry very much about our exporting given the concerns that we just talked about today that many of us agree on. I worry very much about our ex-

porting 1201 in its current form wholesale around the world given that I think many people would agree that even if you don't think we should scuttle it all together, there are significant flaws.

Mr. MARINO. Thank you. This concludes today's hearing and I want to thank all the witnesses for being here. It was quite enlightening. Without objection, all Members will have 5 legislative days to submit additional written questions for the witnesses or additional material for the record.

This hearing is adjourned.

[Whereupon, at 11:47 a.m., the Subcommittee was adjourned.]

APPENDIX

Material Submitted for the Hearing Record

BEFORE THE HOUSE COMMITTEE ON THE JUDICIARY SUBCOMMITTEE ON COURTS, INTELLECTUAL PROPERTY AND THE INTERNET

HEARING ON CHAPTER 12 OF TITLE 17

STATEMENT OF THE LIBRARY COPYRIGHT ALLIANCE

The Library Copyright Alliance (LCA) consists of three major library associations—the American Library Association, the Association of College and Research Libraries, and the Association of Research Libraries—that collectively represent over 100,000 libraries in the United States employing over 350,000 librarians and other personnel. An estimated 200 million Americans use these libraries more than two billion times each year.

LCA has a long history with section 1201 of the Digital Millennium Copyright Act. Its members participated in the legislative process that led to the enactment of section 1201 in 1998. They have also supported the repeated efforts to amend section 1201. Finally, they have participated in all the exemption rulemaking cycles. Based on this extensive engagement, LCA urges that Congress adopt both substantive amendments to section 1201 as well as procedural changes to the rulemaking process.

This statement first explains that the central flaw of the section 1201—its potential to prohibit circumvention of technological protection measures for lawful purposes—was evident when the Clinton administration's Working Group on Intellectual Property first proposed a circumvention ban. The statement then discusses efforts to

correct this flaw both before and after enactment. Next, the statement describes how the courts have wrestled with this flaw, leading to a circuit split. The statement turns to how the exemption rulemaking process has failed to meet the challenges posed by this flaw. Finally, LCA proposes amendments to section 1201.

I. Early Opposition to Section 1201's Overly Broad Circumvention Ban

The concept of a legal prohibition of the circumvention of anti-copying technology first appeared in the European Union's Software Directive, adopted in 1991.[1] In July of 1994, the Clinton administration's Working Group on Intellectual Property (chaired by Bruce Lehman, the Commissioner of the Patent and Trademark Office), issued a Green Paper that proposed a prohibition on the production and distribution of hardware and software tools that circumvent anti-copying technology. Objections were raised that a prohibition on tools could have the effect of preventing copying for lawful purposes.

Notwithstanding these objections, the Working Group's final report—the so-called White Paper, issued on September 5, 1995—retained the anti-circumvention language. In essence, the White Paper concluded that a broad prohibition on circumvention and circumvention tools would be easier to enforce than a more targeted approach, and that the benefits of easier enforcement—more effective technological means for defeating infringement—outweighed the potential collateral damage to lawful uses. On September 28, 1995, the White Paper's legislative proposals, including the anti-circumvention language, were introduced in both the House of Representatives (as H.R.

[1] In contrast to the later proposals by the Clinton administration's Working Group on Intellectual Property, the Software Directive's prohibition on the circumvention tools expressly excluded tools necessary to effectuate the Directive's exceptions. *See* Article 7.1(c).

2441) and the Senate (as S. 1284). On November 15, 1995, in a joint Senate Judiciary Committee–House Intellectual Property Subcommittee hearing on the legislation, Register of Copyrights Marybeth Peters specifically addressed the proposed section 1201. Although she supported the concept of outlawing devices or services that defeat copyright protection systems, Register Peters nonetheless expressed concerns about the "breadth of the language of Section 120[1] as drafted."[2] She urged Congress "to define the offense so as not to potentially sweep within its scope legitimate business behavior."[3] Unfortunately, Congress did not heed her warning. The problem of section 1201's over-breadth interfering with legitimate activities has been a recurring theme for nearly the past 20 years, and indeed underlies the recent controversy concerning cell phone unlocking.[4]

At the same time that PTO Commissioner Lehman was advocating the anti-circumvention language in Congress, he also was advancing it in the World Intellectual Property Organization, which was considering new copyright treaties. At the November 15, 1995, joint hearing, Senator Orrin Hatch made it clear that he did not want the WIPO process to preempt Congress's consideration of the pending legislation in any way. Further, in his statement introducing S. 1284, Senator Hatch emphasized that the bill in its present form was just the "starting point" of an in-depth deliberative process.

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[2] Joint Hearing on H.R. 2441 and S. 1284 Before the House Subcomm. On Courts, Intellectual Property, and the Administration of Justice of the House Comm. on the Judiciary, and the Senate Judiciary Comm., 104th Cong., 1st sess. (Nov. 15, 1995) at 25 (statement of Register of Copyrights Marybeth Peters).
[3] *Id.*
[4] The White Paper and its legislative proposals precipitated the formation of The Digital Future Coalition, consisting of over 40 organizations representing the consumer electronics industry, developers of interoperable software, libraries and educational institutions (including LCA members), and consumer groups, opposed to the White Paper's recommendations.

Nonetheless, Commissioner Lehman aggressively pushed the circumvention issue at the WIPO Diplomatic Conference in Geneva in December of 1996. At the Diplomatic Conference, WIPO adopted a Copyright Treaty and a Performances and Phonograms Treaty. Both treaties contained provisions requiring contracting parties to provide legal remedies against the circumvention of technological measures that protect authors' copyrights. In short, Commissioner Lehman did precisely what Senator Hatch had instructed him not to do. He did an end-run around Congress by convincing WIPO to include in two treaties a prohibition on circumvention of technological protection measures.

After the conclusion of the Diplomatic Conference, the PTO under Commissioner Lehman's direction formulated new anti-circumvention language to implement the WIPO treaties. This language was submitted to Congress in July, 1997. The language Commissioner Lehman proposed was too broad in three different ways:

- It regulated both tools and conduct, rather than just conduct. Virtually any technology can be used for good or evil; the user determines the role the technology plays. Section 1201's approach ran directly contrary to the Clinton administration's stated philosophy with respect to the Internet; it relied on heavy regulation rather than on market-driven solutions.
- It appeared to regulate circumvention, regardless of whether the circumvention actually facilitated infringement. By divorcing the act of circumvention from the act of infringement, the legislation could target circumvention performed for legitimate purposes.

- It addressed the circumvention of access-control technologies *and* copy-control technologies, rather than just the circumvention of copy-control technologies. Because access control is far removed from copyright protection, the prohibition implicated many legitimate activities.

Significantly, the WIPO treaties require none of these overly broad features, as Commissioner Lehman himself conceded to this Subcommittee.[5] The treaties simply require that "[c]ontracting 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."

The WIPO treaties say nothing about tools; they speak only of circumvention. The content community argued that a ban on tools is necessary to afford them "adequate legal protection" and "effective legal remedies," but this interpretation has no basis in the negotiating history of the treaties.

The WIPO treaties also say nothing about prohibiting circumvention in the absence of infringement. Indeed, the treaties could be read as prohibiting only circumvention that does in fact lead to infringement.

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[5] WIPO Copyright Treaties Implementation Act and Online Copyright Liability Limitation Act: Hearing on H.R. 2281 and H.R. 2280 before the House Subcommittee on Courts and Intellectual Prop., 105th Cong., 1st sess. (Sept. 16, 1997) at 62 (testimony of Assistant Secretary of Commerce and Commissioner of Patents and Trademarks Bruce A. Lehman).

Finally, the WIPO treaties say nothing about controlling access to a work. Rather, the treaties speak of the exercise of their rights under the treaties or the Berne Convention, which do not include an exclusive right over access to the work.

Recognizing the over-breadth of the administration's language, Senator John Ashcroft (R-MO) and Representatives Rick Boucher (D-VA) and Tom Campbell (R-CA) introduced alternative legislation implementing the WIPO treaties. The Ashcroft-Boucher-Campbell (ABC) approach read as follows:

> No person, *for the purpose of facilitating or engaging in an act of infringement*, shall engage in conduct so as knowingly to remove, deactivate or otherwise circumvent the application or operation of any effective technological measure used by a copyright owner to preclude or limit reproduction of a work or a portion thereof.

Unlike the Clinton administration's proposal, the ABC formulation focused only on the act of circumvention, not on circumvention devices. Moreover, the ABC formulation did not target all acts of circumvention, only acts of circumvention that facilitated infringement. This would have permitted circumvention for non-infringing purposes.

Rather than adopt the ABC bill's targeted approach, Congress instead created a set of complex exceptions and limitations to the administration's sweeping language, resulting in the convoluted, inconsistent section 1201 we have today. Some of these limitations are of limited effectiveness. For example, section 1201(b), addressing the circumvention of copy controls, originally contained a provision parallel to section 1201(a)(1)—a prohibition on the act of circumventing a copy control. The administration recommended the elimination of this provision in response to the library and education communities' concerns about the impact of the legislation on fair use. The administration suggested that if the prohibition on the circumvention of copy controls

were eliminated, a library engaged in such circumvention for purposes of replacement copying (permitted under 17 U.S.C. § 108) would incur no liability. Though this is technically correct, the administration failed to note that so long as section 1201(b) prohibited the manufacture of tools that could circumvent copy controls, the library had no way of engaging in the circumvention necessary to exercise its section 108 privilege.

Similarly, section 1201(d) provides an exemption for nonprofit libraries, archives, and educational institutions to gain access to a commercially exploited copyrighted work solely to make a good-faith determination of whether to acquire such work. A qualifying institution may gain access only when it cannot obtain a copy of an identical work by other means, and the access may not last longer than is necessary. The provision does not specifically permit the development and distribution of the tools necessary to effectuate the permitted circumvention. Even if permission to develop the tools is implied, the exception has no use. Content providers who want to sell a work to large institutional customers such as libraries and schools would always unlock a sample to demonstrate its features and functions. The library and education associations did not request this exception; rather, it was "given" to them so that members of Congress could claim to have responded to their concerns.

Congress understood that, aside from the exceptions it included in section 1201, there may be other legitimate reasons for circumventing technological protections. Accordingly, Congress suspended application of the prohibition on circumvention of access controls for two years, until the Librarian of Congress could conduct a rulemaking proceeding to determine whether additional exceptions were needed. The DMCA further required the Librarian of Congress to conduct a similar rulemaking every three years

thereafter. The Librarian's principal question is whether the prohibition on circumvention will adversely affect the ability of users of a class of copyrighted works to make non-infringing uses of that class of works in the subsequent three-year period. A narrower section 1201 limited to circumvention that led to infringement would have obviated the need for the rulemaking procedure altogether.

II. Efforts to Amend Section 1201.

As ultimately enacted, section 1201(a)(1) could be understood to prohibit the circumvention of access controls, even if done for a non-infringing purpose, unless the circumvention is specifically permitted by one of the exceptions specified in section 1201. Likewise, sections 1201(a)(2) and 1201(b) could prohibit the manufacture and distribution of circumvention tools, even if they are intended to be used for non-infringing purposes, unless the tools fall within section 1201's specific exceptions. In other words, section 1201 could be interpreted as prohibiting circumvention activity and tools regardless of whether the circumvention results in infringement. Since 1998, several bipartisan bills have been introduced to fix section 1201's central flaw of inadvertently restricting legitimate activities.

A. The Boucher-Doolittle Bill

On October 3, 2002, Representatives Boucher and Doolittle (R-CA) introduced the Digital Media Consumers' Rights Act of 2002 (H.R. 5544). One of the bill's provisions would have amended section 1201.

In introducing their bill, Representatives Boucher and Doolittle recognized that section 1201, by divorcing circumvention from infringement, could have the effect of prohibiting lawful uses of copyrighted works. Although a savings clause in section

1201(c)(1) provided that section 1201 did not affect defenses to copyright infringement, including fair use, fair use was not a defense to a circumvention offense.[6] Accordingly, Representatives Boucher and Doolittle proposed an amendment that would have made non-infringement a defense to circumvention liability. Specifically, their bill would have amended section 1201(c)(1) to provide that "it is not a violation of this section to circumvent a technological measure in connection with access to, or the use of, a work if such circumvention does not result in an infringement of the copyright in the work."

Further, the Boucher-Doolittle bill would have created an exception to the prohibition on the manufacture and distribution of circumvention devices when "the person is acting solely in furtherance of scientific research into technological protection measures." This provision would have codified an argument made by the U.S. Department of Justice during the declaratory judgment action brought by Edward Felten (a professor at Princeton University) against the Recording Industry Association of America. Felten sought a judicial declaration that his research on encryption was lawful. The RIAA responded that the case was moot because the RIAA had withdrawn its objections to his research. The Department of Justice filed a brief in support of the RIAA that argued, among other things, that Felten's research was plainly permitted by the DMCA. In particular, the Department of Justice argued that, insofar as Felten had developed his software tools for research purposes, he obviously had not developed them "for the purpose of circumventing a technological measure that effectively controls access to a work" – a purpose that triggers liability under section 1201(a)(2)(A). In other

[6] *See Universal City Studios v. Corley*, 273 F.3d 429 (2d 2001).

words, even though Felten's tool circumvented a technological measure, the tool's real purpose was research, not circumvention.

Soon after the introduction of the Boucher-Doolittle bill, Richard Clarke, then the head of the White House Office of Cyber Security, asserted that the DMCA should be amended to permit the research of security flaws in software. Characterizing threats against academic researchers as a misuse of the law, Clarke said "I think a lot of people didn't realize that it would have this potential chilling effect on vulnerability research."[7]

No action was taken on the Boucher-Doolittle bill before Congress adjourned for the 2002 elections. However, at the beginning of the 108th Congress, in early January of 2003, Representatives Boucher and Doolittle reintroduced their bill. The bill (now designated H.R. 107—an intentional allusion to section 107 of the Copyright Act, which codifies the fair-use doctrine) was referred to the House Energy and Commerce Committee.[8]

On May 12, 2004, the House Energy and Commerce Subcommittee on Commerce, Trade, and Consumer Protection held a hearing on H.R. 107. The subcommittee heard from fourteen witnesses, including Jack Valenti of the Motion Picture Association of America, Cary Sherman of the RIAA, Robert Holleyman of the Business Software Alliance, Gary Shapiro of the Consumer Electronics Association, Miriam Nisbet of the American Library Association, and two law professors: Peter Jaszi (for the Digital Future Coalition) and Lawrence Lessig.

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[7] Shortly after the introduction of the Boucher-Doolittle bill, Intel, Philips, Sun Microsystems, Verizon, and Gateway announced their support, as did the American Library Association, Consumers Union, and the Electronic Frontier Foundation.
[8] Representative Joe Barton (R-TX), then chairman of the Energy and Commerce Committee, co-sponsored H.R. 107.

Valenti, Sherman, and Holleyman all testified that the legislation would facilitate piracy of content. But many of the other witnesses spoke strongly in favor of the bill, and Chairman Barton indicated his intention to report it out of the committee in the 108th Congress. However, strong lobbying by the copyright industries prevented progress of H.R. 107 in the 108th Congress and of H.R. 1201 (a similar bill introduced by Representative Boucher in the 109th Congress).

B. The Lofgren Bill

On October 2, 2002, Representative Zoe Lofgren (D-CA) also introduced a bill directed at section 1201 of the DMCA: the Digital Choice and Freedom Act of 2002, H.R. 5522. The Lofgren bill, however, took a somewhat narrower approach than the Boucher-Doolittle bill. Under the Lofgren approach, a person could circumvent an access control if the circumvention was "necessary to make a non-infringing use of the work" and "the copyright owner fails to make publicly available the necessary means to make such non-infringing use without additional cost or burden to such person." Similarly, a person could manufacture and distribute the means to circumvent an access control if the "means are necessary to make a non-infringing use," the means are "designed, produced, and marketed to make a non-infringing use," and "the copyright owner fails to make available the necessary means." The Lofgren bill did not detail how the extra step of the copyright owner's failing to make available the means of circumventing would operate.

C. H.R. 1201 in the 110th Congress

On February 27, 2007, Representative Boucher introduced another bill to reform the DMCA. Although once again designated H.R. 1201, this bill was narrower than H.R. 1201 in the 109th Congress or H.R. 107 in the 108th Congress. Instead of amending

section 1201 to require a nexus between circumvention and infringement, the new H.R. 1201 codified the exemptions approved by the Librarian of Congress in the 2006 rulemaking. It also provided additional specific exceptions to section 1201 critical to preserving fair use in the digital age.[9]

D. Cell Phone Unlocking

The Subcommittee is well acquainted with the cell phone unlocking controversy, which was precipitated by the Librarian of Congress's decision in 2012 not to renew an

[9] H.R. 1201 would have exempted the following from liability under section 1201(a)(1)(A):

(i) an act of circumvention that is carried out solely for the purpose of making a compilation of portions of audiovisual works in the collection of a library or archives for educational use in a classroom by an instructor;

(ii) an act of circumvention that is carried out solely for the purpose of enabling a person to skip past or to avoid commercial or personally objectionable content in an audiovisual work;

(iii) an act of circumvention that is carried out solely for the purpose of enabling a person to transmit a work over a home or personal network, except that this exemption does not apply to the circumvention of a technological measure to the extent that it prevents uploading of the work to the Internet for mass, indiscriminate redistribution;

(iv) an act of circumvention that is carried out solely for the purpose of gaining access to one or more works in the public domain that are included in a compilation consisting primarily of works in the public domain;

(v) an act of circumvention that is carried out to gain access to a work of substantial public interest solely for purposes of criticism, comment, news reporting, scholarship, or research; or

(vi) an act of circumvention that is carried out solely for the purpose of enabling a library or archives meeting the requirements of section 108(a)(2), with respect to works included in its collection, to preserve or secure a copy or to replace a copy that is damaged, deteriorating, lost, or stolen.

exemption for cell phone unlocking granted in previous rulemakings.[10] Among the bills that were introduced in response to the public outcry was H.R. 1892, the Unlocking Technology Act of 2013. Co-sponsored by Representatives Zoe Lofgren, Thomas Massie (R-KY), Anna Eshoo (D-CA), and Jared Polis (D-CO), H.R. 1892 went beyond cell phone unlocking, and would have amended section 1201(a)(1)(A) to permit circumvention (and the development of circumvention technologies), "if the purpose of the circumvention is to engage in a use that is not an infringement of copyright…." Additionally, the legislation would have directed the President to "take the necessary steps to secure modifications to applicable bilateral and multilateral trade agreements to which the United States is a party in order to ensure that such agreements are consistent with the amendments made by this Act."

Congress ultimately decided to take a narrower approach, adopting a temporary fix to the specific problem of cell phone unlocking, which President Obama signed into law in August, 2014. Congresswoman Lofgren submitted additional views in the House Judiciary Committee report on this legislation, stating that "this bill is just a small step in the right direction of a much bigger issue:" correcting how the section 1201's "broad protections" for digital locks "harms consumer choice, encourages anti-competitive behavior, and stifles innovation…." Congresswoman Lofgren proceeded to explain that the U.S. Court of Appeals for the Sixth Circuit in *Lexmark Intern. v. Static Control Components*, 387 F.3d 522 (6th Cir. 2004)—discussed below—properly found that "using a lock to assert control over a non-copyrightable product rather than to protect

[10] *See* Jonathan Band, *The End of the Cell Phone Unlocking Saga?*, http://infojustice.org/wp-content/uploads/2014/07/band-end-of-cell-phone-saga.pdf, for a detailed discussion of the cell phone unlocking issue.

copyrightable content was not a permissible understanding of 1201. Otherwise, the DMCA could be impermissibly used to protect monopoly." While Congresswoman Lofgren supported the cell phone unlocking bill, she stated that "it is time for Congress to reexamine section 1201 and make clear that circumvention for uses that do not infringe on copyright are permitted—as was the original intent of the law."

III. Litigation Concerning the Scope of Section 1201

Since 1995, technologists have argued that section 1201 could chill legitimate research into computer security and the development of innovative products. Libraries and universities contended that section 1201 could prevent copying that was lawful under copyright's fair-use doctrine or its library exceptions. These critics' worst fears about the anti-competitive effect of the statute seemed to be validated when two dominant companies attempted to use section 1201 to threaten competitors in aftermarkets. The *Chamberlain* case involved universal transmitters for garage door openers; the *Lexmark* case involved toner cartridges for printers. Fortunately, the judges in these cases interpreted section 1201 in a manner that prevented its anti-competitive use. The Ninth Circuit's decision in *MDY v. Blizzard*, however, has challenged this interpretation. This circuit split calls for Congressional resolution.

A. *Chamberlain v. Skylink*

Skylink had developed a universal transmitter that could activate Chamberlain garage door openers (GDOs). To do so, software in the Skylink transmitter circumvented a lockout code in a computer program embedded in the Chamberlain GDO that controlled the operation of the GDO's motor. Chamberlain sued Skylink, alleging that the Skylink

transmitters violated section 1201 because they circumvented a technological protection measure to obtain unauthorized access to the software embedded in the GDO.

The district court granted summary judgment to Skylink on the ground that Chamberlain had given implicit authorization to its customers to circumvent the access controls in the GDOs they had purchased. On appeal, Chamberlain argued that it had not given such authorization. Skylink defended the district court's holding.

The Federal Circuit agreed with the district court that the customers' circumvention was authorized, but devoted most of its opinion to a rationale completely different from that advanced by Skylink. It interpreted section 1201(a) to prohibit circumvention only if it enables access that infringes or facilitates infringement.

The starting point of the Federal Circuit's analysis was its perception that section 1201 did not create a new property right but rather provided property owners with new ways to secure their property. After reviewing section 1201's legislative history, the court concluded that Congress's objective had not been to change the balance of interests in the copyright law but instead to preserve them in the new digital environment.

Specifically, the Federal Circuit noted that in section 1201 "Congress attempted to balance the legitimate interests of copyright owners with those of consumers of copyrighted products. . . .Were we to interpret Congress' words in a way that eliminated all balance and granted copyright owners carte blanche authority to preclude all use, Congressional intent would remain unrealized."[11] The court interpreted section 1201(a) as "prohibit[ing] only forms of access that bear a reasonable relationship to the

[11] *Chamberlain Group, Inc. v. Skylink Techs., Inc.*, 318 F.3d 1178, 1203 (Fed. Cir. 2004).

protections that the Copyright Act otherwise affords copyright owners"[12] and ruled that this was the "only meaningful reading of the statute."[13] Thus, the Federal Circuit held that trafficking in a circumvention device violates section 1201(a)(2) only if the circumvention enables access that "infringes or facilitates infringing a right protected by the Copyright Act."[14] Here, Chamberlain failed to show "the critical nexus between access and protection."[15] It "neither alleged copyright infringement nor explained how the access provided by the [Skylink] transmitter facilitates the infringement of any right the Copyright Act protects."[16]

B. *Lexmark v. Static Control Components*

Less than two months after the Federal Circuit issued its decision in *Chamberlain*, the U.S. Court of Appeals for the Sixth Circuit issued its decision in *Lexmark v. Static Control Components*. Although the panel opinion does not go as far as *Chamberlain*, the concurring opinion by Judge Merritt goes even farther.

Lexmark had designed the software embedded in its printer—the printer engine program (PEP)—to permit the printer to operate only if it recognized an authentication sequence from the toner loading program (TLP) embedded in the toner cartridge. Lexmark had done this to prevent the use of other manufacturers' less expensive toner cartridges in its printers. Static Control Components (SCC) manufactured the Smartek chip, which it sold to manufacturers of replacement toner cartridges. The Smartek chip

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[12] *Id.* at 1202.
[13] *Id.* at 1203.
[14] *Id.*
[15] *Id.* at 1204.
[16] *Id.* The Federal Circuit reaffirmed its *Chamberlain* holding in *Storage Technology Corporation v. Custom Hardware*, 421 F.3d 1307 (Fed. Cir. 2005).

contained a copy of the Lexmark TLP that enabled the replacement toner cartridges to operate in Lexmark printers. Lexmark sued SCC for infringing the copyright in the TLP and for violating section 1201 by circumventing the technological measures that protected access to the TLP and the PEP. The district court found that Lexmark was likely to prevail on the merits of both claims and entered a preliminary injunction in its favor.

The Sixth Circuit reversed with respect to both the copyright claim and the DMCA claim. The Sixth Circuit found that the TLP likely did not contain any protectable expression. With respect to the section 1201 claim, the Sixth Circuit found that the technological measures employed by Lexmark did not effectively control access within the meaning of the statute.

Judge Merritt wrote a concurring opinion that argued for broadening the majority's holding. "We should make clear," he wrote, "that in the future companies like Lexmark cannot use the DMCA in conjunction with copyright law to create monopolies of manufactured goods for themselves just by tweaking the facts of this case: by, for example, creating a [TLP] that is more complex and 'creative' than the one here, or by cutting off other access to the [PEP]. . . .The key question is the 'purpose' of the circumvention technology."[17]

Judge Merritt rejected Lexmark's interpretation of the DMCA, which would have imposed liability for any circumvention of a technological measure regardless of the purpose of the circumvention. If the court were to adopt Lexmark's reading of the statute,

[17] *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 551-52 (6th Cir. 2004)(Merritt, J., concurring).

he noted, "manufacturers could potentially create monopolies for replacement parts simply by using similar, more creative, lock-out codes. Automobile manufacturers, for example, could control the entire market for replacement parts for their vehicles by including lock-out chips."[18] According to Judge Merritt, this reading "ignores . . . the main point of the DMCA—to prohibit the pirating of copyright protected works such as movies, music, and computer programs."[19] Judge Merritt concluded that unless a plaintiff can show that a defendant "circumvented protective measures 'for the purpose' of pirating works protected by the copyright statute,"[20] its claim should not be allowed to go forward. This interpretation of the DMCA is similar to the Federal Circuit's in *Chamberlain*.

Judge Merritt also opined that Lexmark's interpretation ran contrary to the objective of the intellectual-property clause of the Constitution—promoting the progress of science and useful arts:

> [Lexmark's reading] would allow authors exclusive rights not only over their own expression, but also over whatever functional use they can make of that expression in manufactured goods. Giving authors monopolies over manufactured goods as well as their own creative expression will clearly not "promote the Progress of Science and the useful Arts," but rather would stifle progress by stamping out competition from manufacturers who may be able to design better or less expensive replacement parts like toner cartridges.[21]

Judge Feikens wrote a separate opinion appeared to reach a similar conclusion on the intent of the section 1201. He described its legislative history as demonstrating that "Congress did not intend this provision to apply to devices that merely facilitated

[18] *Id.* at 552.
[19] *Id.*
[20] *Id.*
[21] *Id.* at 553.

legitimate access."[22] Judge Feikens reasoned that "[b]ecause Defendant's chip can only make non-infringing uses of the Lexmark [PEP], it is clear that Congress did not intend to apply the DMCA to this situation."[23]

C. *MDY v. Blizzard*

Two of the three judges on the *Lexmark* panel agreed with the *Chamberlain* panel that section 1201 liability should attach only to circumvention that facilitates infringement. These decisions arguably accomplished precisely what Ashcroft, Boucher, and Campbell sought in their alternative to the Clinton administration's WIPO-implementation bill and what Representative Boucher attempted to achieve in his amendments to section 1201.

However, the Ninth Circuit in *MDY Industries, LLC v. Blizzard Entertainment, Inc.*, 629 F.3d 928 (9th Cir. 2010) firmly rejected the position that section 1201 liability required any nexus between circumvention and infringement. MDY developed Glider, a computer program that continued playing World of Warcraft (WoW) while the user was away from the computer. Blizzard, owner of the copyright in WoW, implemented technological measures to defeat programs such as Glider. For example, Blizzard used a program called Warden, which scanned a user's hard drive for unauthorized programs before allowing the user to log onto the game server. Another component of Warden periodically scanned the user's memory while the user was playing WoW, again looking for unauthorized software such as Glider. MDY had redesigned Glider several times to avoid detection by Warden. Blizzard sued MDY, claiming (among other things) that it was trafficking in a circumvention technology in violation of 17 U.S.C. 1201(a)(2). The

[22] *Id.* at 564 (Feikens, J., concurring in part).
[23] *Id.*

district court found that Blizzard had succeeded in showing all the elements of a circumvention violation.

On appeal, MDY argued that under the Federal Circuit's decision in *Chamberlain v. Skylink*, 381 F. 3d 1178 (Fed. Cir. 2004), the circumvention had to facilitate infringement, and here there was no nexus between circumvention and infringement. After reviewing the language of section 1201 and its legislative history, the Ninth Circuit stated that "While we appreciate the policy considerations expressed by the Federal Circuit in *Chamberlain*, we are unable to follow its approach because it is contrary to the plain language of the statute."[24] It added that the Federal Circuit's "approach is based on policy concerns that are best directed to Congress in the first instance, or for which there appear to be other reasons that do not require such a convoluted construction of the statute's language."[25]

The split between the Federal Circuit and the Ninth Circuit may explain the Fifth Circuit's withdrawal of a favorable decision in *MGE UPS v. GE Consumer and Industrial Inc.*, 622 F.3d 361 (5th Cir. 2010). A manufacturer of power supply machines alleged that an independent maintenance organization had circumvented technological protections so as to enable it to use maintenance software on the manufacturer's machines. In its July 2010 decision, the Fifth Circuit affirmed the district court's dismissal of the section 1201claim, following the holding of the Federal Circuit in *Chamberlain v. Skylink* that there must be a nexus between circumvention and copyright infringement for a section

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[24] *Id.* at 950.

[25] *Id.* Nonetheless, the Ninth Circuit explicitly "d[id] not reach the relationship between fair use under § 107 of the Copyright Act and violations of § 1201. MDY has not claimed that Glider use is a 'fair use' of WoW's dynamic non-literal elements. Accordingly, we too leave open the question whether fair use might serve as an affirmative defense to a prima facie violation of § 1201." *Id.* at 950, n.12.

1201 violation to occur. In response to the manufacturer's motion for rehearing, the Fifth Circuit in October 2010 withdrew the language about a nexus between infringement and circumvention, and affirmed the dismissal of the section 1201 claim on the narrower basis that there was no evidence that the independent maintenance organization (as opposed to an unnamed third party) had performed the circumvention.

IV. The Rulemaking Process

As noted above, section 1201(a)(1) authorizes the Librarian of Congress to conduct a rulemaking every three years for the purpose of adopting temporary exemptions to section 1201(a)(1)'s prohibition on the circumvention of access controls. LCA members have participated in each rulemaking cycle. Some of their applications for exemptions have been granted, while others have been rejected.

The section 1201 rulemaking is an exercise in legal theatre. All the parties to the rulemaking—those seeking an exemption, the rights holders, and the Copyright Office staff—acknowledge that it is unclear whether the rulemaking has any practical effect. This is because section 1201(a)(1)(C) authorizes the Librarian of Congress to adopt exemptions to the Section 1201(a)(1)(A) prohibition on the act of circumventing a technological protection measure, but not to the section 1201(a)(2) prohibition on the development and distribution of circumvention tools. In other words, after receiving an exemption, a person might be legally permitted to perform the act of circumvention, but might have no lawful way of obtaining the technological tools necessary to perform that act.

Similarly, all the parties understand that what occurs inside the hearing room has no connection to the world outside it. In the last three rulemaking cycles, LCA has joined

with other groups in seeking exemptions for educators and students to circumvent the TPMs on DVDs for the purpose of making educational uses of film clips. The rights holders know that the uses we seek will not harm their market in any way. They also know that whether the exemption is granted or rejected will have absolutely no impact on the level of infringement. This is because the technology necessary to circumvent the TPMs on DVDs is widely available on the Internet and easy to use. Nonetheless, the rights holders reflexively oppose the exemption or seek to narrow it so that it would be unusable. As a result, the discussions in the rulemaking descend into hyper-technical issues such as the quality of video necessary for effective pedagogy in different kinds of courses in different levels of education.

Moreover, in two rulemaking cycles, witnesses from the Motion Picture Association of America (MPAA) demonstrated how a person could camcord a film off of a high definition television. MPAA was attempting to show that a relatively high quality recording could be made without circumventing a technological protection measure. What it succeeded in proving, however, was the contradiction underlying its position. If one could obtain a high quality copy without circumvention, why use technological protection measures in the first place, and why should their circumvention be unlawful? Moreover, the MPAA was demonstrating how to camcord a film precisely at the same time it was asking Congress, state governments, and foreign legislatures to impose criminal penalties on camcording.

The surreal quality of the Section 1201 rulemakings has also been evident in connection with the exemptions sought by the blind to circumvent TPMs that disable the text-to-speech function on e-books. In the first hearing concerning this exemption, a

representative of the Association of American Publishers argued that blind already had an exception from copyright liability under the Chafee amendment, 17 U.S.C. § 121, and thus did not need an exemption from section 1201 liability. Fortunately, the Librarian of Congress rejected this position, which would have denied blind people the benefits of e-books. Nonetheless, in the following rulemaking cycle, the rights holders complained that the blind did not meet their burden of proof concerning their need for renewal of the exemption. And in the cycle after that, the Register of Copyrights recommended against an exemption on the grounds of insufficient evidence, but the Librarian of Congress wisely overruled her.

Although the section 1201 rulemaking process is legal theatre, the cost of admission is extremely high, particularly for nonprofit organizations. An entity seeking an exemption must: 1) assemble the evidence to support an exemption; 2) prepare a written request that includes the text of the proposed exemption, an argument in favor of the exemption, and a recitation of the relevant facts; 3) prepare a written reply to oppositions to the request; 4) participate in a hearing in Washington D.C.; and 5) prepare a written response to the Copyright Office's follow-up questions. From start to finish, the process can take more than a year. The Copyright Office is considering some technical changes to its process, but these changes will not affect the overall cost of securing an exemption.[26]

[26] The rulemaking is also burdensome on the Copyright Office. In the 2012 cycle, the Copyright Office received 674 requests for exemptions. In the 2010 cycle, the Register's recommendations to the Librarian of Congress were 262 pages long. The cycle actually should have been completed in 2009, but the Copyright Office could not meet that schedule. Instead, it issued an interim rule that extended the 2006 exemptions until the new rule was issued in 2010.

V. PROPOSED AMENDMENTS

The fact that every three years the blind need to expend scarce resources to petition the Librarian of Congress to renew their exemption—or that libraries and educators have to seek renewal of the film clip exemption every three years—demonstrates the fundamental flaw in section 1201. That flaw is that section 1201 could be interpreted to prohibit the circumvention of a technological protection measure even for the purpose of engaging in a lawful use of a work. Congress should adopt the approach proposed by the Technology Unlocking Act of 2013 and its predecessors, attaching liability to circumvention only if it enables infringement.

With respect to the rulemaking, it should be broadened to apply to sections 1201(a)(2) and (b). Further, the requirement that an exemption be renewed *de novo* every three years is enormously burdensome. Accordingly, when a person seeks renewal of an exemption granted in the previous rulemaking cycle, the burden should be on those opposed to renewal to demonstrate why the exemption should not be renewed or should be modified in some manner.[27] Moreover, if a second renewal is granted, the exemption should become permanent.[28]

Additionally, the final rulemaking authority should be shifted from the Librarian of Congress to the Assistant Secretary for Communications and Information of the Department of Commerce. Currently, the Librarian issues the exemptions on the

[27] The Library of Congress currently places on those seeking an exemption (or renewal of an exemption) the burden of proving that they are likely to be adversely affected by the prohibition on circumvention. Section 1201, however, does not allocate the burden of proof. Thus, the Library on its own could shift the burden of proof in the case of a renewal.

[28] An amendment that allows additional permanent exceptions to the circumvention prohibition may require renegotiation of free trade agreements.

recommendation of the Register of Copyrights, who must consult with the Assistant Secretary. This process should be reversed, with the Assistant Secretary making final determinations after consulting with the Register of Copyrights. Neither the Copyright Office nor the Librarian of Congress has any special expertise to evaluate the adverse effects of a circumvention prohibition. This is particularly true in the case of software. An ever-increasing range of products incorporates software that regulates the interaction of the components of the product, and the interaction between the product and other products and networks. By prohibiting the circumvention of technological measures that control access to software, section 1201 directly implicates the competitive conditions in large segments of our economy. The conflicts over "jailbreaking," cell phone unlocking, replacement toner cartridges, and universal garage door opener remote controls are only the beginning. The Internet of Things envisions a world where the software in devices from pacemakers to refrigerators to cars are monitored and controlled over telecommunications networks. The National Telecommunications and Information Administration is much better situated than the Copyright Office and the Library of Congress to evaluate the adverse impact of restricting competition in such a networked world.

September 16, 2014

Statement for the Record of

before the
U.S. House of Representatives
Committee on the Judiciary

September 17, 2014 Hearing on
Chapter 12 of Title 17

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September 23, 2014

The primary goal of the anti-circumvention provisions of the Digital Millennium Copyright Act ("DMCA") is to combat piracy. As this Committee explained in 1998 when it reported the bill that would become the DMCA, "rapid dissemination of perfect copies will . . . unfortunately . . . facilitate pirates who aim to destroy the value of American intellectual property."

Technology has changed immensely between 1998 and today. In that time, it has become clear that § 1201 must be revised for several reasons. This statement highlights two of those reasons. First, § 1201 has been abused—exploited to control consumers far beyond the prevention of piracy. Second, without legislative reform, the "fail-safe" regulatory process at the Copyright Office is inadequate to address those abuses.

I. Some Parties Exploit § 1201 to Control Consumers and Stifle Competition

Although § 1201 aims to prevent piracy, unfortunately it has proven vulnerable to abuse. When this Committee reported its version of the Digital Millennium Copyright Act to the House floor in 1998, it explained,

> [R]apid dissemination of perfect copies will benefit both U.S. owners and consumers, [but] it will unfortunately also facilitate pirates who aim to destroy the value of American intellectual property.
>
> . . . .
>
> When copyrighted material is adequately protected in the digital environment, a plethora of works will be distributed and performed over the Internet. In order to protect the owner, copyrighted works will most likely be encrypted and made available to consumers once payment is made for access to a copy of the work. There will be those who will try to profit from the works of others by decoding the encrypted codes protecting copyrighted works, or engaging in the business of providing

> devices or services to enable others to do so. A new "Section 1201" to the Copyright Act is required by both WIPO Treaties to make it unlawful to engage in such activity. . . . Just as Congress acted in the areas of cable television and satellite transmissions to prevent unauthorized interception and descrambling of signals, it is now necessary to address the on-line environment.[1]

Two things are immediately clear from this language: first, the Committee was primarily concerned with preventing piracy, or "those who will try to profit from the works of others"; second, the Committee expected that technological protection measures would be used to prevent access to copyrighted works until they were paid for, and would then be removed, thus dispelling any barrier presented by the anti-circumvention provisions. In light of these goals of the anti-circumvention provisions, two abuses are particularly concerning: stifling competition, and controlling access to copyrighted works long after consumers have paid for that access.

A. § 1201 Is Used to Stifle Competition

Rather than just using § 1201 to go after pirates, some have used the anti-circumvention provisions to go after legitimate competitors. For example, in 2003 Lexmark sued competitor Static Control under § 1201 to try to prevent third-party printer cartridges compatible Lexmark printers from competing with its own cartridges.[2] That same year, garage door opener manufacturer Chamberlain sued competitor Skylink under § 1201 to try to prevent Skylink from selling a universal transmitter compatible with Chamberlain products.[3] In 2005, storage solution vendor Storage Technology sued Custom Hardware Engineering, an

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[1] *Report of the H. Comm. on Judiciary on the Digital Millennium Copyright Act of 1998*, H.R. Rep. No. 105-551, pt. 1, at 9–10 (1998) [hereinafter Judiciary Comm. Report].
[2] *See Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522 (6th Cir. 2004).
[3] *See Chamberlain Grp., Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178 (Fed. Cir. 2004).

independent service provider, in an attempt to corner the market on aftermarket maintenance of its products.[4] And in 2010, Microsoft sued chip manufacturer Datel under § 1201 as part of its strategy to prevent Datel from selling third-party accessories for the Xbox 360.[5]

Although a number of § 1201 lawsuits designed to stifle competition have—fortunately—failed, the law is far from settled in this area. Courts have not interpreted the law in a uniform way. For example, while in *Chamberlain v. Skylink* the Federal Circuit found that a § 1201 violation could not take place in the absence of actual copyright infringement (an "infringement nexus"), the Ninth Circuit has "decline[d] to adopt an infringement nexus requirement."[6] And the Supreme Court has yet to rule on the merits of § 1201.

Moreover, companies continue to use technological protection measures for anti-competitive purposes, explicitly or implicitly relying on § 1201 to protect those TPMs. For example, phone carriers continue to sell phones locked to one network to make it difficult for their customers to switch to a different provider at will, and CTIA – The Wireless Association has actively opposed a § 1201 exemption for consumers who wish to unlock their phones. And following in the Lexmark model, some manufacturers of 3D printers now use TPM to prevent people who have purchased their devices from using third-party inputs.

B. § 1201 Is Used to Control Access to Copyrighted Works Long After Consumers Have Paid for that Access

In 1998, Congress envisioned that "copyrighted works [would] most likely be encrypted and made available to consumers once payment is made for access to a copy of the work."[7] But today, § 1201 is regularly used to control whether and how consumers access copyrighted works *long after they have paid for access to*

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[4] *See Storage Tech. Corp. v. Custom Hardware Eng'g & Consulting, Inc.*, 421 F.3d 1307 (Fed. Cir. 2005).
[5] *See Datel Holdings, Ltd. v. Microsoft Corp.*, 2010-2 Trade Cas. (CCH) P77, 192 (N.D. Cal. 2010).
[6] *MDY Indus., LLC v. Blizzard Entm't, Inc.*, 629 F.3d 928, 958 (9th Cir. 2010).
[7] Judiciary Comm. Report at 10.

the work. For example, even after a person who is blind has bought and paid for an electronic book, TPM still stands in the way of her accessing the book to read it using an electronic reader, with § 1201 looming in the background. Long after a phone customer has purchased a phone and exhausted his service contract, after an e-recycling company has bought it secondhand, TPM still stands in the way of that company accessing the firmware on the phone simply to unlock the phone so that it may be resold for reuse on a different network. And years after a filmmaker has purchased a DVD to add to her collection, TPM still stands in the way of her accessing the work on the disc to incorporate a few clips from it into an upcoming documentary.

II. Without Legislative Reform, the "Fail-Safe" Regulatory Process at the Copyright Office Is Inadequate to Address These Abuses

Recognizing the possibility for abuse, Congress saw fit to create a regulatory proceeding within the Library of Congress to grant exemptions from the anti-circumvention provisions that would be limited in time and scope. The Commerce Committee described this as "a 'fail-safe' mechanism."[8] Unfortunately, the process has proven remarkably burdensome for both participants and the Copyright Office that administers it. Because the process is so burdensome, it is completely inaccessible to the average consumer, and relatively few participate as a result. But the Copyright Office believes it is bound by the statute to retain some of the most cumbersome aspects of the process. Thus only legislative reform will suffice to adequately address § 1201 abuses.

There are two aspects of the exemption rulemaking that render it particularly burdensome. First, the proceeding takes place every three years and the Copyright Office engages in "de novo" review of each proposal every three years, including proposals that have been granted numerous times in the past and that no party has come forward to oppose. Second, the Copyright Office

[8] *Report of the H. Comm. on Commerce on the Digital Millennium Copyright Act of 1998*, H.R. Rep. No. 105-551, pt. 2, at 36 (1998).

places the burden of demonstrating the need for an exemption wholly on exemption proponents, imposing on them a high "preponderance of the evidence" standard.

The statute clearly requires that the exemption proceeding take place every three years.[9] On its face the statute is silent on the question of whether or not review should be conducted de novo and the Copyright Office arguably has the interpretive authority to adopt a different standard of review, but the Copyright Office believes itself incontrovertibly bound to this standard by language found in the House Commerce Committee Report on the bill that later became the DMCA.[10] Similarly, the statute directs the Librarian of Congress to "make the determination in a rulemaking proceeding" regarding exemptions, and is silent as to whether or not the Librarian or the Copyright Office can or should conduct independent fact-finding, as many administrative agencies do in the course of a rulemaking.[11] Nevertheless, the Copyright Office believes itself bound to place the burden entirely on exemption proponents, and insists on a preponderance-of-the-evidence standard.[12] The de novo review and preponderance of evidence standards, combined with the requirement that the review take place every three years, create an enormous strain on the resources of all parties involved in the triennial review process. In addition, the fact that even when an exemption is granted in any given cycle, there is no guarantee that the exemption will be granted again three years later, chills consumer uses, technological innovation, and business investment in the field.

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[9] 17 U.S.C. § 1201(a)(1)(C).

[10] *Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, Notice of Inquiry and Request for Petitions, 79 Fed. Reg. 55687, 55689 (Sept. 17, 2014) [hereinafter Copyright Office NOI].

[11] 17 U.S.C. § 1201(a)(1)(C).

[12] In support of its decision to impose a preponderance of evidence standard on exemption proponents the Copyright Office cites, among other things, a case interpreting a section of the Administrative Procedures Act that applies only to administrative hearings, and not to rulemakings more generally. *See* Copyright Office NOI at 55689 (citing *Steadman v. SEC*, 450 U.S. 91, 102 (1981)).

For example, as Mark Richert Director of Public Policy for the American Foundation for the Blind explained before this Committee,

> For those keeping score, we've now been through four rulemaking proceedings spanning more than a decade. In a seemingly endless loop that calls to mind the dilemma of Bill Murray's character in the movie Groundhog Day, we, our colleagues, and our pro bono counsel have poured hundreds of hours of work into a lengthy bureaucratic process that requires us to document and re-document the accessibility of copyrighted works and argue and re-argue the rarely-disputed premise that making books and movies accessible to people with disabilities does not infringe or even remotely threaten the rights of copyright holders. In short, section 1201 has forced us to strain our limited resources simply to achieve the human and civil right to access digital copyrighted works on equal terms.[13]

Not only is the review process incredibly burdensome, the preponderance of evidence standard is unreasonably high. One clear indication of this is that the Copyright Office recommended that the Librarian of Congress deny the exemption for book accessibility for the blind in 2010, even after it had been granted twice before.[14] Another indication is that the Librarian of Congress did indeed deny the exemption for phone unlocking in 2012, even after granting it twice before (and 117,000 Americans petitioned the White House for the right to unlock their own phones afterwards, demonstrating that the need clearly existed).

In addition, the Copyright Office requires that proponents of an exemption "establish that the proposed use is likely to qualify as noninfringing under relevant law . . . . not merely that the use might plausibly be considered

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[13] Richert Testimony at 6.
[14] *See* Richert testimony at 5.

noninfringing."[15] But the problem with this is clear. Because one would have to circumvent TPM to make use of the work it controls access to, and it is unlawful to circumvent TPM without an exemption, cases of first impression regarding novel noninfringing uses *will never be possible* if the Copyright Office limits the granting of exemptions to circumstances in which the law is already established. By establishing such a high burden, the Copyright Office essentially requires that a party prevail in an infringement action at court before they may have any hope of success at the Copyright Office.

Because exemptions may be denied that have been granted repeatedly in the past, the granting of exemptions provides no certainty to those who would take advantage of them, chilling business investment in related fields. After seeing how quickly an administrative office in Washington can take away the right to unlock phones, a venture capitalist might think twice before bankrolling a proposed startup to offer an inexpensive unlocking service to customers across the country.

Nothing less than an act of Congress will relieve the likes of the American Foundation for the Blind, Consumers Union, the International Documentary Association, and Telecommunications for the Deaf and Hard of Hearing, Inc.—public interest organizations who have limited resources and who do not specialize in copyright law—of the enormous burden that is the "seemingly endless loop" of participation in the triennial review process the way it is conducted today.

III. Conclusion

We are very grateful to the Committee for hosting a hearing on Section 12 of Title 17, an important topic. We urge you to take legislative action to scale back § 1201 to put a stop to the many ways in which it is being abused, stifling creativity and innovation.

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[15] Copyright Office NOI at 55690.

Association of American Publishers, Inc.
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Statement Submitted for the Hearing Record
House Judiciary Committee
Subcommittee on Courts, Intellectual Property, and the Interuet
November 12, 2014

Hearing on "Chapter 12 of Title 17"
September 17, 2014

Introduction

Two key themes emerged at the House Judiciary Subcommittee on Courts, Intellectual Property, and the Internet's ("IP Subcommittee") hearing on "Chapter 12 of Title 17." The first theme was that technological protection measures ("TPMs") enable content creators and technology-focused innovators to offer the public more safe, convenient, and affordable choices for accessing copyrighted material than ever before (including free access). The second theme was that the Section 1201 triennial rulemaking process for authorizing limited circumvention of TPMs (specifically, access controls) has provided important flexibility to avoid overly-restrictive application of TPMs, and stakeholders broadly agree that reauthorization of non-controversial exemptions could be more efficient.

The Association of American Publishers ("AAP") appreciates this opportunity to place its views in the record of this hearing. Specifically, AAP submits this statement to provide examples from the publishing industry to illustrate the importance of TPMs to convenient and secure online distribution and access to books, journals, and innovative learning solutions. In addition, this statement will outline AAP's support for the suggestions to improve the 1201 triennial rulemaking process ("1201 Process") offered at the hearing by the Entertainment Software Association ("ESA") and ACT: The App Association ("ACT").

[1] The Association of American Publishers (AAP) represents nearly 450 publishers, ranging from major commercial book and journal publishers to small non-profit, university, and scholarly presses (for more information, please visit www.publishers.org)

TPMs Enable Safe, Innovative Distribution and Use of Copyrighted Works

There is no question that, at the time the DMCA was enacted, TPMs were, as Chairman Goodlatte put it, "intended to enable copyright owners to engage in self-help to protect their works from [online] theft."[2] However, the testimony at the IP Subcommittee hearing made clear that, regardless of how effective TPMs have been at directly combating piracy, TPMs "have allowed the video game industry," app developers and other copyright holders to "embrace new digital technologies and distribution models" to offer consumers more convenient and affordable ways to safely access content than ever before.[3]

In particular, ACT noted that, "the app industry — a vibrant, innovative, and growing industry that is in every congressional district in the United States — didn't exist when the [DMCA] became law in 1998."[4] Due in substantial part to the protections afforded for TPMs under the DMCA, this dynamic, customer-focused industry emerged and continues to flourish at the intersection of content and technology.[5] The emergence and growth of the app industry, the evolution of the video game industry away from packaged games to cloud-based user experiences, and the publishing industry's own eBook subscription services and library lending programs, illustrate that meaningful protection of TPMs incentivizes creators to embrace digital technology to increase consumer choice in accessing copyrighted works. Although enforcement to deter theft of digital content is necessary, supporting a robust market for legal content is essential to promoting a legal and responsible online marketplace.

With regard to the market for digital books, journals and learning materials, AAP submitted a post-hearing statement to the IP Subcommittee in September 2013 that provided an overview of a number of new business models in and around our three key publishing sectors: Trade, Academic and Professional and Scholarly publishing.[6] This post-hearing statement highlighted the growing collaboration between content creators and technology companies to enhance consumer choices and reading experiences, though it did not specifically identify the TPMs that underlie many of those business models.

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[2] *Chapter 12 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (Opening Statement of Chairman Bob Goodlatte (R-VA)).

[3] With regard to safety, see ACT's written statement regarding the role of the digital receipt in validating and authenticating purchases. *Chapter 12 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (ACT: The App Association, written statement at 4-5).

[4] *Id.* at 2.

[5] Id. at 3 (stating that "app developers increasingly identify themselves as content creators as well as technological innovators.").

[6] *The Rise of Innovative Business Models: Content Delivery Methods in the Digital Age: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2013) (Association of American Publishers, written statement) http://www.publishers.org/_attachments/docs/copyright_policy/aapnewbusinessmodelsphs112613.pdf; *see also First Sale Under Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (Association of American Publishers, written statement at Appendix) http://www.publishers.org/_attachments/docs/copyright_policy/aapfirstsalephs061714.pdf.

As explained below, many of the convenient features that eBook consumers and educators want from digital content, such as free chapter previews, library and personal lending of eBooks, access across multiple devices, and advances in adaptive learning technologies that customize academic content to the needs of individual students, are implemented through TPMs.

Digital Benefits Implemented Through TPMs[7]

Free Previews

TPMs help consumers find books and journals they will enjoy by permitting free previews of chapters on major online retailer sites like Amazon.com and Barnes and Noble.com. Publishers also use TPMs to make electronic versions of soon-to-be released books, a.k.a. e-Galleys, available through access-controlled websites to verified librarians before the books are released to the public. This way, librarians can read the books in advance and acquire the ones they think will be popular with their patrons once the books are released to the public.

Edelweiss is an online portal where Macmillan offers current U.S.-based librarians and other customers access to pre-release books online when they register for an account with their library-issued email address and their credentials are verified.[8]

Ebook Subscription Services[9]

TPMs enable readers to access more books, more conveniently, than ever before. Services such as Scribd, Oyster, and Kindle Unlimited use TPMs to offer customers, with verified accounts, unlimited online access to vast libraries of hundreds of thousands of eBooks. Without TPMs, these exciting new services for consumers would not be possible.

Library Lending

TPMs facilitate access to eBooks by allowing publishers to experiment with different business models in the online environment to find sustainable library lending models. The examples below illustrate how

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[7] These examples are not intended as either an endorsement or critique of any of the business models provided, but rather are intended to illustrate the array of innovative developments that are facilitated by TPMs. The examples above also illustrate how license-based business models for digital books, journals and academic content can respect copyright and offer consumers new benefits, such as customization and multi-device access that are not feasible for print materials.

[8] *Get Whitelisted on Edelweiss for Macmillan e-Galleys,* MACMILLAN LIBRARY.COM (Jan. 7, 2013) http://www.macmillanlibrary.com/2013/01/07/get-whitelisted-on-edelweiss-for-macmillan-e-galleys/.

[9] *See generally*, www.scribd.com; www.oysterbooks.com/about. A recent article notes the prevalence of Digital Rights Management tools (often used interchangeably with TPMs, even though the two are different: "Kobo, Google, and Apple all use their own unique type of DRM internally, and so does Oyster, the subscription ebook service." *Sony Developing New eBook DRM Platform, Exploring Idea Used eBook Sales,* THE DIGITAL READER (Oct. 30, 2014) http://the-digital-reader.com/2014/10/30/sony-developing-new-ebook-drm-platform-exploring-idea-used-ebooks-sales/#.VF0c0_nF91Z; *see also* Brad Stone, *Scribd's E-Book Subscription Service, Now with Audiobooks,* BUSINESS WEEK (Nov. 6, 2014) http://www.businessweek.com/articles/2014-11-06/scribd-launches-audiobook-service.

all major trade publishers are now using business models implemented through TPMs to embrace the online environment for connecting readers to great books:

Hachette Offers "all of its e-book titles to libraries simultaneously with print editions and with unlimited single-user-at-a-time circulations," reducing the price of the eBook one year after publication.[10]

HarperCollins Offers e-book titles to libraries and allows libraries to lend new titles 26 times before the license expires.

Macmillan Started offering library lending of e-book titles in March 2013 under licenses that allows libraries to lend the titles for two years or 52 lends, whichever comes first.[11]

Penguin Random House Penguin licenses eBook titles to libraries for one-year lending terms.[12] Random House offers e-book titles to libraries under perpetual licenses.

Simon & Schuster Currently offers all of its titles (new and backlist) for one year to New York area libraries under a pilot program testing out a number of different eBook distributors.[13]

Sharing eBooks with Friends

TPMs facilitate lending eBooks between friends without infringing copyright law. The examples below show how access controls (TPMs) enable consumers to lend books to their friends and family without creating multiple copies of the work that would jeopardize the ability of publishers to invest in the development and dissemination of books and journals in the future.

Amazon "You can lend a Kindle book to another reader for up to 14 days. The borrower does not need to own a Kindle device and can read the book after downloading a free Kindle reading app…During the loan period, you will not be able to read the book that you loaned."[14]

Nook "You can lend eligible books to NOOK friends, or any BN.com account - up to 14 days. You will not have access to your book while it is lent out (similar experience with paper book), and each book can

[10] *Hachette Book Group to Offer Full eBook Catalog to Libraries: More than 5,000 Titles, Including New Releases* (May 1, 2013) Press Release.
[11] *eBooks for Libraries*, MACMILLAN LIBRARY.COM (Oct. 7, 2013) http://www.macmillanlibrary.com/2013/10/07/ebooks-for-libraries/.
[12] Andrew Albanese, *Penguin Expands E-books in Libraries*, PUBLISHERS WEEKLY (Sept. 26, 2013) http://www.publishersweekly.com/pw/by-topic/digital/content-and-e-books/article/59255-penguin-expands-e-books-in-libraries-adds-friction-to-kindle-lends.html.
[13] Sal Robinson, *Simon & Schuster Announce New eBook Lending Program for Libraries*, MHP BOOKS.COM (Apr. 17, 2013) http://www.mhpbooks.com/simon-schuster-announce-new-ebook-lending-program-for-libraries/.
[14] *Lend or Borrow Kindle Books*, AMAZON.COM http://www.amazon.com/gp/help/customer/display.html/ref=hp_left_v4_sib?ie=UTF8&nodeId=200549320 (Nov. 12, 2014).

only be lent one time. You can view a list of all your lendable books by tapping LendMe, found under the My Stuff icon along the top of the screen in your Library."[15]

Multi-Device Access

TPMs support new benefits for consumers. Requiring consumers to create an account that uses a user name and password to access their music, books, films, etc. can benefit the public and copyright owners. Consumers have a centralized area to organize and access their content, which removes the risk of accidentally leaving your book on the metro and facilitates multi-device access (i.e., reading your book on your tablet and then picking up where you left off on your phone). Copyright owners, in turn, have a means of ensuring that a purchased copy of a work is only used by one person at a time, *i.e.*, implementation of TPMs, which manage access to content stored in a centralized cloud, helps publishers to prevent a single copy of a digital work from being downloaded, replicated and disseminated to millions of readers around the globe. This layer of security, while not perfect, is critical to encouraging publishers to make new releases, bestsellers, and intensively-researched works available as eBooks and online journals.

"Whispersync" technology Amazon enables readers to easily resume reading their eBook wherever they left off by "synchroniz[ing], *among devices registered to the same account*, the furthest page read."[16] Requiring the devices to be registered to the same account is a form of access control that helps ensure that the same reader is accessing the work.

Kindle Owners' Lending Library "Books borrowed from the Lending Library have no due date and can be delivered to other Kindle devices *registered to your Amazon account*."[17]

Adaptive Learning Systems

TPMs promote innovative learning solutions. By associating a specific user with a particular copy of course material, or a license to interact with such material, TPMs that authenticate the user enable educational publishers to offer students adaptive learning solutions that customize the presentation of content and assessment tools to facilitate more effective comprehension.

MindTap Chemistry[18] Cengage Learning's latest learning innovation is licensed to the student for the duration of a course at less than the price of a traditional print textbook, and exemplifies the next generation of educational technology products for the higher education market. Unlike other digital

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[15] *Nook Tablet: Frequently Asked Questions*, BARNES AND NOBLE.COM http://www.barnesandnoble.com/u/Support-NOOK-Tablet/379003185 (Nov 12, 2014).
[16] *The Rise of Innovative Business Models: Content Delivery Methods in the Digital Age: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2013) (Amazon testimony at 6).
[17] *Borrow Books from the Kindle Owners' Lending Library*, AMAZON.COM http://www.amazon.com/gp/help/customer/display.html?nodeId=200757120 (Nov. 12, 2014).
[18] Cengage Learning, *MindTap*. http://www.cengage.com/mindtap/ (November 12, 2014).

solutions, MindTap is not a static content set, developed around homework and textual material. MindTap is courseware, whose architecture makes personalization, by professors or students, the key value proposition. Using enhanced analytics and immediate feedback, MindTap provides a student with a personalized study plan and remediation loops. Professors can add a wide range of Cengage content, their own content, or open educational resources ("OER") to the course to further enrich the learning experience and to make the course their own.

The examples above illustrate that, while TPMs play a role in discouraging theft of copyrighted works online,[19] they are primarily used within the publishing industry to broaden access to published content in a manner that provides customers with convenient access to content that is authentic and safe to use.

AAP Supports a More Efficient 1201 Rulemaking Process

An updated and robust public record underpinning each proposed exemption to the general prohibition against access control circumvention helps ensure the reasonable and transparent application of the 1201 Process. Creating this public record is essential for new, as well as previously-contested, proposals for exemptions. However, AAP acknowledges that developing this record every three years can place an unnecessary burden on those seeking reauthorization of previously-granted, non-contested exemptions that facilitate non-infringing uses (potentially considered "non-controversial" exemptions).

For example, the publishing industry does not object to the position of the American Foundation for the Blind that visually-impaired individuals should be able to circumvent TPMs in the form of access controls in order to use assistive technologies, such as screen readers, with legally-acquired eBooks. AAP has not opposed advocacy for the renewal of this exemption to circumvent access controls as publishers have taken steps to facilitate broader availability of accessible works in the U.S. and abroad.[20] The TPMs applied to eBooks are not intended to prevent visually-impaired individuals from reading lawfully-acquired eBooks and journals with the aid of assistive technologies, where necessary. This type of scenario illustrates the type of situation where a carefully-crafted exemption is appropriate to ensure that TPMs are not applied in an unintended or overly-restrictive manner.

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[19] AAP acknowledges that no TPM or other measure will completely deter certain infringers from finding a way to gain unauthorized access to the content in order to distribute it for free online. Publishers cannot dwell on this and instead want to provide the majority of mainstream consumers with more flexible, convenient and safe ways to access content — use of TPMs that facilitate achievement of this objective to benefit the customer should not be limited by Congress.

[20] The following examples illustrate the publishing industry's efforts to create readily accessible books and journals for the commercial market: (1) *AAP EPUB 3 Implementation Project*, PUBLISHERS.ORG http://publishers.org/epub3implementationproject/ (Nov. 12, 2014) (describing the goal of the AAP-coordinated project as "to accelerate across-the-board adoption of the EPUB 3 format… [to implement] expanded accessibility for people who are blind or have other print disabilities"); (2) World Intellectual Property Organization, *Marrakesh Treaty to Facilitate Access to Published Works for Persons Who are Blind, Visually Impaired, or Otherwise Print Disabled*, (Jul. 31, 2013) http://www.wipo.int/edocs/mdocs/copyright/en/vip_dc/vip_dc_8_rev.pdf; (3) A joint-effort of AAP and The National Federation of the Blind, The TEACH Act (Technology, Equality and Accessibility in College and Higher Education Act), is a proposal for Congress to direct an expert body to develop accessibility guidelines for electronic instructional materials and related information technologies (tablets, e-readers, etc.) used in institutions of higher education. The TEACH Act was introduced by Congressman Tom Petri (R-WI) as H.R.3505 on November 15, 2013, moving the industry one step closer to making accessible books and journals commercially available through mainstream markets.

To ease the burden of repeatedly applying for such exemptions, AAP supports the suggestion put forward at the hearing by ESA and ACT to replace the *de novo* evidentiary burden for certain proposed exemptions with a presumption in favor of renewal under particular conditions, including: (1) the exemption has previously been granted; (2) the factual circumstances have not changed in any material way; and (3) the exemption remains unopposed.

In addition, AAP supports ACT's related suggestion to improve the efficiency of the 1201 Process through a presumption against the application of an exemption permitting circumvention where a work is available in an accessible format. If an accessible version is available, there is no reasonable basis for circumventing a different version of the work that is subject to access controls. While the 1201 Process is critical to ensuring that TPMs do not unnecessarily restrict access to copyrighted content for non-infringing uses, it is not intended to give individuals the discretion to circumvent access controls where such circumvention is unnecessary to obtaining access.[21]

Circumvention Prohibitions Cannot be Tied Exclusively to Instances with a Nexus to Actual Infringement

ESA noted that "the prohibition against trafficking in tools or technologies designed to circumvent TPMs that control access to a protected work…without requiring a link to infringement" is essential for a modern copyright law that incentivizes online dissemination of copyrighted works.[22] The practical reality is that requiring a nexus to actual infringement cannot be implemented in an effective manner with regard to actual circumvention or tools and services that facilitate circumvention. Publishers support a copyright law that works, not amendments to functioning provisions that undermine confidence in the practical enforcement of the law.

Determining whether any particular act of access control circumvention has led to an act of infringement would require a copyright holder to undertake an intrusive investigation to seek out whether the user created or shared an unauthorized copy of the work. As explained above, copyright owners primarily use TPMs to promote access to works and ask that the law continue to allow them to focus their investments on bringing new content to the public as opposed to policing individual instances of circumvention to establish a nexus to infringement.

Furthermore, cracking a TPM to access a movie, song or journal article may not constitute copyright infringement on its own, but reasonable minds would agree that gaining unauthorized access

[21] For example, if an accessible version of a television show *(i.e.,* one with subtitles for the hearing impaired) is readily available in the market (through the television network's website, Netflix, or other providers), a hearing impaired person does not have the discretion to circumvent the access controls for an inaccessible version of that show (e.g., on Amazon) in order to achieve the same result.

[22] *See Chapter 12 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (Entertainment Software Association, written statement at 9-11).

to the copyrighted work may deprive the creator of deserved compensation.[23] Although accessing a work may not constitute infringement on its own, the Constitution intends copyright law to "secur[e] for limited times to the authors…the exclusive right to their respective writings."[24] Securing the author's "exclusive" right over the dissemination of their works requires effective tools to control access in the online environment. Therefore, a prohibition against circumvention—unrelated to infringement—is an essential element of an effective copyright system that affords authors "exclusive right to their respective writings."

To truly "promote the progress of science and useful arts," Congress should help creators embrace the Internet for disseminating their works of art, literature, music, and film because it is a powerful tool for broadening access to copyrighted works. The exponential growth of the app industry demonstrates that the current statutory framework, which does not link circumvention prohibitions with any underlying act of infringement, supports this goal. Maintaining this structure recognizes that creators need effective tools to control access to their works online so they can obtain fair compensation in the digital marketplace and continue to create new works to enrich society into the future.

Tools and Services

Similar to the rationale for not linking circumvention prohibitions to an underlying act of copyright infringement, the current limitation of the 1201 Process to allow exemptions for circumventing access controls but not for the distribution of circumvention tools or services, is critical to a modern copyright law that secures an author's exclusive rights to their works. Allowing individuals to circumvent a TPM to permit their screen readers to make legitimately-acquired eBooks accessible does not undermine the author's exclusive right. The visually-impaired individual purchased the eBook and circumventing the TPM simply allows the individual to read it. Selling circumvention tools (or offering circumvention services), however, would either require invasive monitoring of TPM circumvention tool/ service purchases to verify use limited to approved exemptions, or, more likely, would result in widespread circumvention of the TPMs that make an online market for copyrighted works viable under many new business models. Authorizing circumvention exemptions for access controls empowers the appropriate individuals to use copyrighted works in non-infringing ways. Allowing exemptions for circumvention tools and services could not be similarly limited in an effective and non-intrusive manner.[25] Therefore, the current 1201 Process should not be expanded to include exemptions for circumvention tools and services.

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[23] Copyright owners can decide to give content away for free or to make content available without TPMs. AAP has no position on what individual publishers and other copyright owners should do to promote or limit access to their content. What is important, is that creators have a **choice** and have meaningful tools to participate in the market for disseminating creative works without unnecessary risk that diminishes incentives to create and distribute content in the future.

[24] CONST. art. I, §8 cl. 8 (granting Congress the power "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.").

[25] *See generally Chapter 12 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (Entertainment Software Association, written statement at 9-11) (citing The Copyright Office's last triennial rulemaking decision, 77 Fed. Reg. 65260, 65274 (Oct. 26, 2012), which explained its rejection of certain proposed exemptions purportedly limited to "non-infringing uses only" given the lack of proof that such circumvention of access controls could be limited, in the real world, only to non-infringing uses).

Courts are Clear about the Intended Purpose of TPMs

As Chairman Goodlatte noted, Chapter 12's TPM provisions should not be used to protect non-copyright industries from competition.[26] AAP agrees. Amending Chapter 12, however, is no guarantee that companies seeking to stretch the application of the law will refrain from future litigation. On the contrary, under the existing statutory language, courts have clearly rejected such potentially abusive applications of the law[27] and have thus created powerful precedents to deter similar litigation in the future. These precedents appear to be working, as highlighted by Rep. Doug Collins' astute line of questioning during the hearing, revealing that most of the cases of potential abuse cited by the Electronic Frontier Foundation occurred many years ago and resulted in courts rejecting the applicability of circumvention prohibitions.[28] Thus, AAP encourages Congress to weigh the limited impact of these failed attempts to over-extend TPM protections against the immense benefits (noted above) provided to the public through innovative distribution of copyrighted content facilitated by TPMs and their current enforcement under Chapter 12 of Title 17.

Conclusion

In sum, AAP encourages Congress to consider the old adage: "if it's not broken, don't fix it." Since the enactment of the circumvention prohibitions in Chapter 12, eBooks, subscription services, online lending, cloud storage allowing multi-device access, and adaptive learning solutions have all emerged within the publishing industry. Even more compelling, though, is the fact that a brand new, never-contemplated, industry, the app industry, now worth $68 billion and employing 750,000 Americans, developed and continues to flourish under the current language of Chapter 12. This should be a good indication that the law is not only *not broken*, but actually appears to be promoting innovation and job creation quite well, especially where content and technology companies work together. Publishers, therefore, urge Congress to make only minor adjustments to improve the efficiency of the 1201 Process discussed above, but not to restructure Chapter 12, as this would likely undermine or, at a minimum, call into question the critical protections that have been making continued investments in new business models feasible.

AAP appreciates this opportunity to support the recommendations of ESA and ACT for improving the efficiency of the 1201 Process and to provide the IP Subcommittee with the above

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[26] *Chapter 12 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (Opening Statement of Chairman Bob Goodlatte (R-VA)) (noting that "I'm not sure that anyone involved in the drafting would have anticipated some of the TPM uses that have been litigated in court, such as replacement printer toner cartridges and garage door openers, so I am also interested in ways to better focus Chapter 12 on protecting copyrighted works from piracy, rather than protecting non-copyright industries from competition.").

[27] *Chapter 12 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (ACT: The App Association, written statement at 3) (describing the content of its *Quick Guide to the DMCA: Digital Millennium Copyright Act Basics*, including that "critics continue to claim that the DMCA 'chills innovation,' pointing to a handful of cases as proof. However, in each of these few cases, the courts have applied the facts and found that the DMCA either did not apply or was not violated. The courts have consistently and repeatedly rejected efforts to abuse the DMCA and new businesses and business models built around copyrighted content are flourishing.").

[28] *See Chapter 12 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. (2014) (Rep. Doug Collins (R-GA), questions to Electronic Frontier Foundation).

examples of how TPMs are enabling content creators and technology-focused innovators to offer the public more safe, convenient, and affordable choices for accessing copyrighted material than ever before. We look forward to continued engagement with the Subcommittee as it undertakes future hearings on other copyright issues.

Sincerely,

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