UNITED STATES DISTRICT COURT

DISTRICT OF COLUMBIA

MATTHEW GREEN

4506 Roland Ave. Baltimore, MD 21210,

ANDREW HUANG

233 Bain St. #10-01 Singapore 180233 Singapore, and

ALPHAMAX, LLC

560 Lodge Lane Kalamazoo, MI 49009,

Plaintiffs,

V.

U.S. DEPARTMENT OF JUSTICE, LORETTA LYNCH

950 Pennsylvania Ave., NW Washington, D.C. 20530,

LIBRARY OF CONGRESS, CARLA HAYDEN

101 Independence Ave., SE Washington, D.C. 20540

U.S. COPYRIGHT OFFICE, MARIA PALLANTE

101 Independence Ave., SE Washington, D.C. 20559-600,

Defendants.

Civil Case No.	
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COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

Plaintiffs Matthew Green, Andrew "bunnie" Huang, and Alphamax, LLC, by and through their attorneys, allege as follows:

INTRODUCTION

- 1. This lawsuit challenges the "anti-circumvention" and "anti-trafficking" provisions of the Digital Millennium Copyright Act ("DMCA"), 17 U.S.C. §§ 1201(a), 1203, and 1204 (collectively "the DMCA Anti-Circumvention Provisions"). Enacted in 1998, these provisions broadly restrict the public's ability to access, speak about, and use copyrighted materials, without the traditional safeguards—such as the fair use doctrine—that are necessary to protect free speech and allow copyright law to coexist with the First Amendment. The threat of enforcement of these provisions chills protected and noninfringing speech that relies on copyrighted works, including independent technical research into computer security systems and the discussion of that research, and accessing copyrighted works in order to shift the content to a different format, space, or time. The triennial rulemaking process by which the public may seek exemptions pursuant to 17 U.S.C. § 1201(a)(1)(C) does not alleviate these problems. To the contrary, the rulemaking is itself an unconstitutional speech-licensing regime.
- 2. The Library of Congress failed in its October 28, 2015, rulemaking to grant exemptions from the DMCA's anti-circumvention provision, 17 U.S.C. 1201(a)(1), for speech using clips of motion pictures, for the shifting of lawfully-acquired media to different formats and devices, and for certain forms of security research. *See* Library of Congress, "Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies," 80 FR 65944 (Oct. 28, 2015) ("Final Rule"). The Librarian's failure to grant these exemptions violates the First Amendment and the Administrative Procedure Act ("APA"), 5 U.S.C. § 702.

- 3. The Plaintiffs in this case wish to conduct valuable research and expression, and to enable others to do the same, but are chilled from doing so by Section 1201 of the DMCA.
- **4.** Plaintiffs bring this action to enjoin enforcement of the DMCA Anti-Circumvention Provisions, on their face and as applied to them, as violating the First Amendment to the U.S. Constitution.

PARTIES

- **5.** Plaintiff Matthew Green is an Assistant Professor at the Johns Hopkins Information Security Institute. He resides in Baltimore, Maryland.
- **6.** Plaintiff Andrew "bunnie" Huang is an electrical engineer, inventor, and owner of several small businesses, including Alphamax, LLC. He resides in Singapore.
- 7. Plaintiff Alphamax, LLC, ("Alphamax") is a limited liability company incorporated under the laws of the state of Michigan. It develops audiovisual media technology.
- **8.** Defendant U.S. Department of Justice ("DOJ") is a Cabinet-level executive department in the United States government charged with enforcing the criminal laws of the United States.
- 9. Defendant Loretta E. Lynch is the Attorney General of the United States. As Attorney General, Lynch oversees the criminal enforcement of DMCA Sections 1201 and 1204 by the DOJ. Defendant Lynch is sued in her official capacity.
- 10. Defendant Library of Congress ("LOC") is an agency of the legislative branch of the U.S. government. It encompasses several units, including the U.S. Copyright Office. The exemption rulemaking at issue in this case takes place under the LOC's ambit.

- 11. Defendant Carla Hayden has been nominated and confirmed as the Librarian of Congress, Director of the LOC. Defendant Hayden is sued in her official capacity (pending her official appointment).
- **12.** Defendant U.S. Copyright Office directly manages the exemption rulemaking process at issue in this case.
- 13. Defendant Maria Pallante is the Register of Copyrights and the head of the U.S. Copyright Office who conducted the rulemaking challenged in this case. Defendant Pallante is sued in her official capacity.
- **14.** Defendants LOC, Hayden, Copyright Office, and Pallante are referred to collectively as the "Rulemaking Defendants."

JURISDICTION AND VENUE

- 15. This case arises under the Constitution and the laws of the United States, including 17 U.S.C. §§ 1201, 1203, and 1204.
- 16. The Court has jurisdiction pursuant to Article III of the Constitution and 28
 U.S.C. § 1331. The Court also has jurisdiction under the Administrative Procedure Act, 5 U.S.C.
 § 702. The Court has authority to grant declaratory relief pursuant to the Declaratory Judgment
 Act, 28 U.S.C. § 2201-2202.
 - 17. Venue is proper in this Court pursuant to 28 U.S.C. § 1391 and § 1400.

LEGAL AND FACTUAL BACKGROUND

I. The DMCA Anti-Circumvention Provisions

- A. The Statutory Framework: Section 1201 and Fair Use
- **18.** The DMCA's anti-circumvention provision states: "No person shall circumvent a technological measure that effectively controls access to a work protected under this title." 17

- U.S.C. § 1201(a)(1)(A). Such technological measures are sometimes referred to as "technological protection measures" or TPMs. Under the statute, to "circumvent a technological measure' means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner." 17 U.S.C. 1201(a)(3)(A). "[A] technological measure 'effectively controls access to a work' if the measure, in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work." 17 U.S.C. 1201(a)(3)(B).
- **19.** In addition to the prohibition on circumvention, Section 1201(a)(2) prohibits trafficking in a technology or service that:
 - (A) "is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title";
 - (B) "has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to a work protected under this title"; or
 - (C) "is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title."
- **20.** Courts have held that the prohibitions in Section 1201(a) apply even where the circumvention has no connection to copyright infringement. *See Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 443-44 (2d Cir. 2001); *accord MDY Indus., LLC v. Blizzard Entm't, Inc.*, 629 F.3d 928, 950 n.12 (9th Cir. 2010).

- **21.** Other courts have held that Section 1201(a) only prohibits circumvention that has a nexus to copyright infringement. *See, e.g., Chamberlain Grp., Inc. v. Skylink Techs.*, Inc., 381 F.3d 1178, 1202-03 (Fed. Cir. 2004).
- 22. The fair use doctrine, 17 U.S.C. §107, protects activities that might otherwise be considered to infringe copyright. The Supreme Court has characterized fair use and the exclusion of ideas from copyright protection as "built-in First Amendment accommodations" that help reconcile the speech restrictive effects of copyright law with Constitutional protections for free speech. *Golan v. Holder*, 132 S. Ct. 873, 890 (2012); *Eldred v. Ashcroft*, 537 U.S. 186, 219 (2003).
- 23. To the extent that Section 1201 forbids circumvention even where such activity would be a noninfringing use (such as a fair use), or facilitates other lawful uses, it undermines the constitutionally required balance between copyright liability and the First Amendment and thereby disturbs the traditional contours of copyright.
- **24.** Section 1201 inhibits a wide range of protected and noninfringing expressive activities, including activities that Plaintiffs wish to conduct.

B. Criminal Enforcement of Section 1201

- **25.** Section 1204 of the DMCA imposes criminal penalties for violations of Section 1201 that are willful and for the purpose of financial gain. A first offense is punishable by up to five years in prison and a fine of \$500,000. 17 U.S.C. 1204(a)(1).
- **26.** The U.S. Attorney General leads efforts to enforce federal criminal statutes concerning intellectual property. *See, e.g.*, U.S. Dept. of Justice, "Prosecuting Intellectual Property Crimes," (2013), at 4-5.
- **27.** The Executive Office for United States Attorneys has promulgated a manual that instructs federal prosecutors about how to prosecute DMCA violations. *Id.* at 233-79. The

manual advises that a person can be prosecuted for circumvention or trafficking based on Section 1201 even if the circumvention or trafficking has no nexus to copyright infringement. *Id.* at 240.

28. Federal prosecutors have prosecuted alleged violations of Section 1201 on multiple occasions.

II. The Triennial Rulemaking Under Section 1201(a)(1)

- **A.** The Exemption Process
- 29. Once every three years, members of the public may approach the Copyright Office to request that particular types of activities relating to a particular class of copyrighted works be exempted from the anti-circumvention prohibitions of Section 1201(a)(1). For example, one might ask that the public be allowed to circumvent technological protection on DVDs in order to extract short clips for educational purposes. The Copyright Office provides recommendations to the Librarian, who makes the ultimate decision about whether to grant exemptions.
- **30.** If an exemption is granted, then circumvention within the scope of the exemption is not a violation of Section 1201(a)(1) for the following three-year period.
- 31. The DMCA requires the Librarian to grant exemptions where the Librarian has determined "that noninfringing uses by persons who are users of a copyrighted work are, or are likely to be, adversely affected" by the prohibition on circumvention. 17 U.S.C. § 1201(a)(1)(D).
- **32.** Section 1201(a)(1)(C) of the DMCA instructs the Librarian to examine specific factors in making these determinations:
 - "(i) the availability for use of copyrighted works;
 - (ii) "the availability for use of works for nonprofit archival, preservation, and educational purposes;

- (iii) the impact that the prohibition on the circumvention of technological measures applied to copyrighted works has on criticism, comment, news reporting, teaching, scholarship, or research;
- (iv) the effect of circumvention of technological measures on the market for or value of copyrighted works; and
- (v) such other factors as the Librarian considers appropriate."
- 33. The Rulemaking Defendants have imposed a variety of onerous requirements on applicants seeking exemptions under this procedure. These requirements, which are not mandated by Section 1201 and do not appear anywhere in the DMCA, include:
 - a. Placing the burden on the party seeking an exemption to establish that their speech should be permitted. *See* U.S. Copyright Office, "Sixth Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention, Recommendation of the Register of Copyrights," ("2015 Recommendation"), at 14-15.
 - **b.** Requiring an applicant to demonstrate a widespread impact on noninfringing uses, rather than a simple showing of impact on the applicant's own speech. *See* 2015 Recommendation at 16.
 - **c.** Requiring evidence that people are already engaging in circumvention even though submitting such evidence invites criminal and other legal jeopardy.
 - **d.** Requiring a showing that there is no viable alternative means of engaging in that use, even if the alternative is significantly more onerous and expensive, results in lower quality, or for other reasons is not a common practice of persons in the field. *See*, *e.g.*, 2015 Recommendation at 85-87.

- e. Denying exemptions based on wide-ranging policy issues that have nothing to do with copyright law and that fall outside the competence of the Rulemaking Defendants. For example, the Rulemaking Defendants cited purported policy concerns such as automobile pollution and energy policy to justify narrowing and denying exemption requests. *See* Final Rule at 65954; 2015 Rulemaking, Register's Recommendation at p. 241.
- **f.** Imposing vague and overbroad restrictions on the exemptions that are granted.
- 34. The triennial rulemaking is also fundamentally flawed because it does not provide for even the possibility of exemptions from violations of the anti-trafficking provisions in Section 1201(a)(2).
- 35. Further, the limited exemptions that are granted from the anti-circumvention prohibitions expire within three years, with no certainty or even presumption of renewal. In fact, the Rulemaking Defendants have failed to renew several exemptions, including an exemption to research Internet blocklists, an exemption to test certain TPMs for malicious software, and an exemption to allow mobile phone owners to change carriers. The public therefore cannot rely on the continued existence of the exemption to protect their activities.
 - B. The Exemption Process Illustrates Section 1201's Adverse Impact on Speech
- **36.** Members of the public seeking exemptions in the triennial rulemaking process have catalogued many of Section 1201's adverse effects on protected speech.
- **37.** In the 2015 Rulemaking, members of the public presented evidence that Section 1201 adversely affected their ability to excerpt from motion pictures to create new films, even

though many of those uses, such as parodies and other forms of commentary, would be lawful fair uses.

- **38.** Nonetheless, the Rulemaking Defendants denied the portion of the exemption that would have permitted "narrative" filmmakers to circumvent in order to extract excerpts of motion pictures for use in their films. 2015 Rulemaking, Register's Recommendation, pp. 78–82.
- **39.** Applicants for exemptions also provided evidence that Section 1201 adversely affects the following protected and noninfringing speech activities:
 - a. Education of K-12 students in media literacy or critical media studies.2015 Rulemaking, Register's Recommendation at 92.
 - **b.** Educational uses by students and instructors outside the school environment (such as adult education programs) or by students in massive open online courses ("MOOCs"). *Id.* at 88.
 - **c.** Educational uses by museums, libraries, and nonprofits. *Id.* at 92.
 - **d.** "Format shifting" (converting lawfully-acquired media from one format to another). *Id.* at 124.
 - **e.** "Space shifting" (moving lawfully-acquired media from one device to another). *Id.* at 124.
 - **f.** Creation of noncommercial films using more than short clips. *Id.* at 70-71.
- **40.** Despite the evidence presented to them in this rulemaking proceeding, the Rulemaking Defendants denied those applications.
- **41.** In contrast, the Rulemaking Defendants have recognized that Section 1201 has adversely affected the following First-Amendment-protected activities and have granted exemptions for these activities:

- **a.** Documentary filmmaking. *Id.* at 85-86, 90.
- **b.** Creation of short noncommercial films. *Id.* at 86.
- **c.** Creation of ebooks discussing media analysis. *Id.* at 86, 91.
- **d.** Educational uses by faculty and students at colleges and universities and by nonprofit institutions offering MOOCs (for film studies or other courses requiring close analysis of film and media excerpts). *Id.* at 87, 92.
 - e. Security research. *Id.* at 188–89.
- **f.** Conversion of media to accessible formats for the visually impaired. *Id.* at 135.
- **g.** Creation of videos that "remix" content from other videos into a new work. *Id.* at 91.
- **h.** Restoration of lawfully acquired video games where such games are no longer supported by the maker. *Id.* at 344–47.
 - i. Analysis of medical data on medical devices. *Id.* at 397, 401.
- 42. The limited exemptions that the Rulemaking Defendants have granted for these activities do not adequately protect the speech at issue, however, because they are unduly narrow and do not extend to Section 1201(a)(2)'s prohibition of distributing tools, knowledge, or services that can facilitate these uses.
 - C. The 2014-2015 Rulemaking Was Arbitrary, Capricious, and Contrary to Law
- **43.** In November 2014, members of the public petitioned for the Rulemaking Defendants to issue 44 exemptions to the ban on circumvention. *See* 79 Fed. Reg. at 73,859.
- **44.** The Copyright Office rejected three of these without detailed consideration. *See* 79 Fed. Reg. at 73,859.

- **45.** The Copyright Office condensed the remainder of the proposals into 27 classes, writing its own language for proposed exemptions that were, in general, narrower than the original requests. *See* 79 Fed. Reg. at 73,859.
- **46.** The Copyright Office then requested three rounds of briefing for each of its proposed exemptions, and conducted hearings.
- **47.** Three categories of exemptions sought in the 2015 Rulemaking are particularly relevant to Plaintiffs' work.

1. Proposed Classes 1-7

- **48.** Classes 1-7 involved uses of audiovisual works such as motion pictures. An array of public interest groups representing educators, remix video artists, documentary filmmakers, and others sought exemptions to remove potential 1201 liability as a barrier to engaging in expressive activities.
- **49.** The Rulemaking Defendants issued several limited exemptions, but declined to issue exemptions for "narrative" filmmaking, noncommercial filmmaking using more than short clips, educational uses for K-12 students or for adult students outside a college or university setting, and other proposed uses.
- **50.** As a result, for example, it may be unlawful to circumvent in order to create a running critical commentary on a large portion of a political debate, sporting event, or movie, even where such activity would be a noninfringing fair use.
- **51.** The Rulemaking Defendants denied the narrative film exemption based solely on speculation regarding the potential effects on existing licensing markets for motion picture excerpts, regardless of whether the use of the excerpts in narrative film would be noninfringing.

- **52.** With respect to the noncommercial filmmaking exemption, the Rulemaking Defendants concluded without explanation that such an exemption was not "necessary." *See* Final Rule at 65949.
- 53. The Rulemaking Defendants denied or limited the audiovisual work exemptions in large part based on the availability of what opponents described as "adequate" or "viable" alternatives—*e.g.*, clip licensing, screen-capture technology, streaming platforms, disc-to-digital services, and digital rights libraries. But the Rulemaking Defendants failed to address whether those alternatives would in fact provide comprehensive or cost-effective substitutes of comparable quality for each of the proposed classes. *See* Final Rule at 65947-49. They would not.
- 54. The Rulemaking Defendants did not address several of the Register's findings regarding the viability of these alternatives. For example, the Register found that screen-captured images remain of lower quality than those available via circumvention of access controls, that certain uses would suffer as a result, and that the inability to obtain higher-quality footage through circumvention is having an adverse effect on filmmakers. *See* 2015 Rulemaking, Register's Recommendation, pp. 85-86, 99.
- 55. In denying exemptions for making noninfringing use of Blu-ray content in narrative and noncommercial filmmaking, the Rulemaking Defendants did not respond to proponents' arguments that there is a significant amount of material that can only be found in Blu-ray format, and that distribution standards require films to incorporate clips of high-definition quality.
- **56.** The Rulemaking Defendants had a duty under the First Amendment and under the DMCA to grant the requested exemptions, but they failed to do so. As a result, Section 1201

continues to inhibit filmmakers and educators from making fair and noninfringing uses of short clips of motion pictures.

2. Proposed Classes 8 and 10

- 57. Classes 8 and 10 focused on Format-Shifting and Space-Shifting.
- **58.** Format-shifting involves taking a work that one lawfully possesses and converting it to another format (for example, so that it takes up less disk space or is compatible with a wider range of playback or editing software).
- 59. Space-shifting involves making a copy of a work one lawfully possesses so that it can be placed on a different device (e.g. placed on a tablet for portable viewing, or a phone or mp3 player for portable listening, or a newer or older device for compatibility reasons). As proponents of these exemptions explained, the Supreme Court has ruled that recording a program for viewing later (as with a VCR) is a noninfringing fair use. *Sony Corp. of Am. v. Universal City Studios*, Inc., 464 U.S. 417, 421 (1984).
- **60.** Nonetheless, the Rulemaking Defendants denied the proposed exemptions. They cited two primary justifications: the notion of "established" fair use and the availability of online distribution services. *See* Final Rule at 65960.
- 61. In considering the exemptions generally, the Rulemaking Defendants placed the burden on the exemptions' proponents to demonstrate both the need and the legal justifications for the exemptions. *See* 2015 Rulemaking, Register's Recommendation, p. 123.
- 62. With regard to fair use, the Rulemaking Defendants erroneously concluded that there was insufficient "established" or "current" judicial guidance to determine whether formatshifting or space-shifting are fair uses. It reached this conclusion despite relevant case law cited by proponents of the exemption and despite widespread support and consensus for the view that

format shifting and space shifting are noninfringing—support the Rulemaking Defendants expressly acknowledged. Final Rule at 65960; 2015 Rulemaking, Register's Recommendation, p. 122, 125.

- 63. With regard to online distribution services, the Rulemaking Defendants did not meaningfully consider whether the cost, quality, or availability of these still "emerging" services made them viable alternatives to circumvention. Final Rule at 65960; 2015 Rulemaking, Register's Recommendation, pp. 120, 124-25. The Rulemaking Defendants likewise did not address the National Telecommunications and Information Administration's recognition that these services "have not been made available with the large majority of the physical media ever sold' and are limited to those with high speed internet access." 2015 Rulemaking, Register's Recommendation, pp. 125-26.
- 64. The Rulemaking Defendants had a duty under the First Amendment and under the DMCA to grant the requested exemptions, but they failed to do so. As a result, Section 1201 continues to restrict the public from making routine, personal uses of lawfully acquired copyrighted works, such as transferring an e-book to a new device or by converting a Blu-ray disc to a format that can be viewed on a particular device.

3. Proposed Classes 22, 25, and 27

- **65.** Classes 22, 25, and 27 involved security research into electronic devices containing copyrighted software code, such as medical devices, automobile computers, and Internet-connected appliances. In the Final Rule, these classes were consolidated into a single exemption.
- 66. The Rulemaking Defendants found that the ban on circumvention was adversely impacting noninfringing uses, but denied portions of the exemption, delayed its implementation, and imposed other restrictions based on considerations outside the scope of copyright law.

- 67. The Final Rule's exemption for security research is confined to circumvention on "a device or machine that is primarily designed for use by individual consumers (including voting machines)," motorized land vehicles (*e.g.*, cars), and medical devices that are designed for "implantation in patients or a corresponding personal monitoring system, that is not and will not be used by patients or for patient care." *See* Final Rule at 65956.
- **68.** The exemption includes further restrictions on how research may be conducted and how researchers may use or distribute the information they glean from their inquiries. *See* id.
- 69. In limiting the exemption to consumer-oriented devices, the Rulemaking

 Defendants concluded that proponents of the exemptions had presented evidence as to consumeroriented devices, but that the record did not support a broader exemption into non-consumeroriented devices.
- **70.** Proponents of a broader exemption had provided evidence into non-consumer-oriented devices, including voting machines and medical devices.
- 71. Instead of viewing that evidence as supporting a broader exemption that included non-consumer-oriented devices, the Rulemaking Defendants simply included certain medical devices and voting machines in the Final Rule regarding consumer-oriented devices.
- 72. In effect, the Rulemaking Defendants forced proponents to identify each non-consumer-oriented device or technology that they wished to investigate in order for it to be included in the exemption.
- 73. In focusing on hypothetical harms related to sensitive systems like nuclear power plants and air traffic control systems (domains already subject to specific regulation overseen by specialist agencies), the Rulemaking Defendants exceeded their statutory mandate by considering factors beyond the Rulemaking Defendants' mandate or competence.

74. The Rulemaking Defendants had a duty to grant the requested exemptions and failed to do so. As a result, Section 1201 continues to restrict good faith research into a wide range of devices and technology.

III. Section 1201 Inhibits Plaintiffs' Expressive Activity

- A. Plaintiff Green's Research Projects
- 75. Matthew Green is a professor of computer science and a researcher at Johns Hopkins University. He investigates the security of electronic systems and informs manufacturers of vulnerabilities in the interest of having them fixed. He also publishes information obtained via this independent security research in academic literature and is writing a book on the subject. He would like to include detailed information regarding how to circumvent security systems in his book, and expects to earn royalties on the book's sale.
- 76. Green and his team have found serious flaws in the automotive anti-theft systems used in millions of Ford, Toyota, and Nissan vehicles. He has also uncovered flaws in the encryption that powers nearly one third of the world's websites, including Facebook and the National Security Agency. He has also identified flaws in Apple's iMessage text messaging system that could have allowed an eavesdropper to intercept user communications.
- 77. Green's research includes investigating the security of industrial-grade encryption devices used to secure cryptographic keys for purposes such as processing credit card or ATM transactions. He has a grant from the National Science Foundation to investigate the security of medical record systems. He also wishes to investigate the security of medical devices, toll collection systems, industrial firewall and virtual private network devices, and wireless communication systems that connect vehicles to one another and to the surrounding infrastructure.

- **78.** During the 2015 Rulemaking, Green requested an exemption to cover his security research. As required, he explained that the research is otherwise lawful and noninfringing.
- 79. As the Rulemaking Defendants recognized in the 2015 Rulemaking, the ban on circumvention has an adverse effect on computer security research like Green's. As the Rulemaking Defendants also recognized, this adverse effect is not cured by the statutory security research exemption of 17 U.S.C. 1201(j), because that exemption is both overly narrow and vague.
- 80. Green has declined to investigate certain devices due to the possibility of litigation based on Section 1201. He and researchers like him are hamstrung in their ability to use certain techniques that are standard in those parts of the research security field that Section 1201 does not affect. By limiting researchers to less effective methods, Section 1201 diminishes the possibility of finding useful results while significantly increasing the effort involved. This greatly undermines the security of all manner of technologies.
- **81.** Fear of liability has forced Green and other researchers to forego important research, and to expend substantial time and money evaluating the litigiousness of manufacturers before initiating other research.
- **82.** Green is also chilled from informing others of vulnerabilities, including the vendor responsible for the product. In one instance, after informing a vendor of a vulnerability, the vendor contacted the Provost of Johns Hopkins University and asked that Green's research be suppressed.
- **83.** In numerous instances, good-faith security research has prompted manufacturers to threaten legal action, including litigation under Section 1201.

- **84.** These chilling effects are not eliminated by the Final Rule's exemption for certain security research, because the exemption is limited in the many ways described above.
- **85.** If the Librarian had not limited the Final Rule, then Green and his team would be able to lawfully circumvent technical restrictions in non-consumer-oriented devices and non-implanted medical devices to perform his security research without violating the anti-circumvention provision of Section 1201.
- **86.** Fear of liability under Section 1201 prevents Green from engaging in this research and publishing the results.
- **87.** The risk of criminal prosecution under Section 1201(a)(2) prevents Green from selling a book that might garner significant commercial sales discussing how to circumvent access controls.

B. Plaintiffs Huang and Alphamax's NetVCR Project

88. Plaintiff Huang is an electrical engineer with a Ph.D. from the Massachusetts
Institute of Technology. He owns and runs several small businesses, including Kosagi (hardware design), Chibitronics (K-12 educational technology), and Alphamax (digital video specialties).
He invented the world's first fully-integrated nanophotonic-silicon chips (winning the Lewis Award for Best Paper at the International Solid-State Circuits Conference 2007); Novena (an open hardware computing platform); the Safecast Open Hardware Geiger Counter (in response to the earthquake that devastated Fukushima); and Chumby (an early "Internet of Things" device enabling the consumption of Internet content on common household appliances). He has participated in the design of autonomous robotic submarines, graphics hardware and software, and wireless communications devices. He is a Research Affiliate of the MIT Media Lab.

- **89.** Huang is also the inventor of the "NeTV" devices for editing high-definition digital video streams.
- **90.** Under the umbrella of Alphamax, Huang seeks to create an improved version, the "NeTVCR," which would enable new forms of speech and the ability to save one's creations, which is not possible with the previous model.
- **91.** The device would also allow people to recapture the functionality of a VCR—it allows them to save content for later viewing, move content to a viewing device of the user's choice, or convert content to a more useful format.
- **92.** "HDMI" stands for "High-Definition Multimedia Interface," and is a digital video standard commonly used to send video signals from devices like computers, DVD players, and video game consoles to televisions and computer monitors.



Figure 1: Image of HDMI connector. Source: Public Domain Image available at https://en.wikipedia.org/wiki/File:HDMI-Connector.jpg



Figure 2: Image of HDMI socket on a display device. Source: Public Domain Image available at https://en.wikipedia.org/wiki/File:HDMI.socket.png

- 93. To create the device, Huang and Alphamax must circumvent the technology that restricts the viewing of HDMI signals, known as High-bandwidth Digital Content Protection ("HDCP"), which was developed by Intel Corporation. HDCP relies on secret cryptographic keys to prevent viewing of HDCP-restricted media. To receive one of these secret keys from Intel, a manufacturer must promise to implement certain playback and copying restrictions.
- **94.** A security researcher wrote that HDCP could be circumvented as early as 2001, but did not publish their work, citing fear of prosecution and civil litigation under Section 1201 of the DMCA.¹
- 95. In 2010, the "master key" for HDCP was anonymously uploaded to the Internet. Using the master key, it is possible to bypass HDCP restrictions without obtaining secret keys from Intel or agreeing to their terms restricting playback.
- **96.** Intel has stated that it believes researchers independently derived the master key via mathematical analysis, rather than it being leaked by someone entrusted to keep it confidential.
- 97. Intel has also stated that it would sue anyone who used the master key to create an unauthorized device for HDCP playback.²
- **98.** The existing NeTV device creates a limited ability to superimpose pixels onto an HDMI stream, but its functionality is dramatically restricted because it is designed not to circumvent HDCP, and thus does not provide access to the HDMI stream.
- **99.** NeTVCR would provide access to the HDMI stream to enable a far broader range of uses compared with NeTV.

¹ https://web.archive.org/web/20120220014712/http://www.macfergus.com/niels/dmca/cia.html.

https://www.wired.com/2010/09/intel-threatens-consumers/.

- **100.** NeTVCR would allow customers to engage in new forms of protected and noninfringing expression using HDMI signals, including:
 - **a.** Political expression, *e.g.*, a single TV screen that displays a live presidential debate, and the text of a commentator's live blog.
 - **b.** Educational expression, *e.g.*, side-by-side comparison between two films or a compilation of clips for media literacy education.
 - c. News expression, *e.g.*, a single TV screen that simultaneously displays the coverage of a live event by more than one news source.
 - **d.** Safety expression, *e.g.*, a TV screen that displays a live program, and also text or visual overlay that notifies a home owner that a door has opened or reminds an old or ill person that they need to take their medicine.
 - e. Cultural expression, *e.g.*, a video gamer's post of an image of herself playing a game, along with her own commentary about the game.
 - **f.** Commercial expression, *e.g.*, a TV in a sports bar that displays games, and also targeted textual advertisements for local businesses of interest to sports viewers.
- **101.** Huang and Alphamax would also design NeTVCR to allow customers to space-shift and format-shift HDMI signals.
 - **102.** Alphamax seeks to commercially distribute NeTVCR.
- **103.** Huang and Alphamax's conduct is protected by the traditional contours of copyright law, including fair use and the idea/expression dichotomy as well as limitations on secondary liability.

- **104.** Neither Huang nor Alphamax will infringe any copyright, either as a result of circumventing HDCP, or by creating or disseminating NeTVCR hardware or software or information about NeTVCR.
- 105. Neither Huang nor Alphamax will encourage any other party to infringe any copyright in connection with the creation or dissemination of NeTVCR hardware or software or information about NeTVCR.
- **106.** The NeTVCR has substantial noninfringing uses, as described above. Thus, making and distributing NeTVCR does not constitute contributory infringement.
- 107. Huang and Alphamax seek to use and enable others to use NeTVCR for purposes that were the subject of several requested exemptions, including use of excerpts of motion pictures for commentary, educational uses, creation of narrative fair use film, and space- and format-shifting.
- **108.** If the Librarian had granted those exemptions, then Huang and Alphamax would be able to circumvent HDCP as necessary to use the NeTVCR, without violating the anticircumvention provision of Section 1201.
- **109.** Fear of prosecution under Section 1201 deters Huang and Alphamax from engaging in the circumvention of HDCP applied to copyrighted works in furtherance of the noninfringing uses described above.
- 110. Fear of prosecution under Section 1201 also deters Huang and Alphamax from commercially distributing the NeTVCR device, software that would upgrade the NeTV into a NeTVCR, or information about how to build NeTVCR.

COUNT 1

SECTION 1201 IS UNCONSTITUTIONALLY OVERBROAD

(By All Plaintiffs Against DOJ and Lynch)

- **111.** Plaintiffs reallege and incorporate Paragraphs 1 through 110 as if fully set forth herein.
- 112. As alleged above, Plaintiff Green seeks to engage in good-faith security research on a range of devices. He also seeks to publish a book that would educate readers about how to circumvent access controls on copyrightable software.
- 113. As alleged above, Plaintiffs Huang and Alphamax seek to develop and use, and Plaintiff Alphamax to disseminate, a device for facilitating lawful commentary and creative expression. Those activities would be protected by the fair use doctrine from claims of copyright infringement.
- **114.** As alleged above, Plaintiffs and many others are chilled from engaging in such activity by the broad sweep of Section 1201 and the threat of criminal prosecution.
- 115. A statute is unconstitutionally overbroad if it prohibits a "substantial" amount of activity that is protected by the First Amendment, "judged in relation to the statute's plainly legitimate sweep." *Broadrick v. Oklahoma*, 413 U.S. 601 (1973).
- 116. To the extent that the purpose of Section 1201 is "to promote the progress of science and the useful arts," see U.S. Const. Art I, Sec. 8, cl. 8, its restrictions are not narrowly tailored to this purpose. Rather, they sweep up a vast amount of protected speech. This includes the speech that Green, Huang, Alphamax, and users of NeTVCR would undertake, but for the fear or criminal and other penalties. It also includes the many forms of speech that have been the subjects of exemption requests, and many additional forms of speech that have not yet been the subject of an exemption request. The means chosen in Section 1201 specifically targets the

communicative impact of uses of copyrighted works and speech about the circumvention of TPMs that restrict such works.

- 117. These prohibitions operate atop the government's preexisting regulatory structure for advancing the progress of science and the useful arts: namely copyright and patent law.
- **118.** The prohibitions contained in Section 1201 are not effective for their stated purpose and are counterproductive to that purpose.
- **119.** As described above, Section 1201 burdens a substantial range of protected speech that is disproportionate to its legitimate sweep.
- **120.** For these reasons, Section 1201 is unconstitutionally overbroad in violation of the First Amendment.

COUNT II

SECTION 1201 IS AN UNCONSTITUTIONAL PRIOR RESTRAINT AND SPEECH LICENSING REGIME

(By All Plaintiffs Against All Defendants)

- **121.** Plaintiffs reallege and incorporate Paragraphs 1 through 120 as if fully set forth herein
- 122. The rulemaking contemplated by Section 1201(a)(1) is a licensing regime that lacks the safeguards the First Amendment requires. The combined ban and exemption process grants excessive power to a government official to make discretionary case-by-case decisions absent sufficient controlling standards.
- 123. Section 1201 does not provide for timely review of requests for permission to speak. Applicants must wait up to three years for an opportunity to participate in the triennial rulemaking, and the Rulemaking Defendants have no deadlines governing when they must issue a rule granting or denying exemption requests.

- **124.** There is no provision guaranteeing judicial review of the Librarian's rulemaking decisions.
- 125. Section 1201 provides insufficient guidance on exemption standards. If "noninfringing uses by persons who are users of a copyrighted work are, or are likely to be, adversely affected," the Librarian must grant an exemption. However, the statute lists various factors to be considered in arriving at that determination, including "such other factors as the Librarian considers appropriate."
- 126. The Rulemaking Defendants have exacerbated the many failures of the DMCA's licensing regime by interpreting it to permit vague and unreliable exemption standards. For example, the Rulemaking Defendants interpret the "other factors" language to allow the Librarian to deny or narrow an exemption at their discretion, even where the ban on circumvention has adverse effects on noninfringing uses. *See* 2015 Rulemaking, Register's Recommendation at 248 n.1663.
- **127.** The Rulemaking Defendants have also exacerbated the defects of Section 1201 by interpreting it to place the burden of justifying speech on the proponent of speech. *See* 2015 Rulemaking, Register's Recommendation at 13-14.
- **128.** For these reasons, Section 1201(a)(1) is an unconstitutional prior restraint on speech, which prevents legitimate speech before it occurs and on that basis violates the First Amendment.

COUNT III

SECTION 1201 IS UNCONSTITUTIONAL AS APPLIED TO GREEN (By Green Against DOJ and Lynch)

129. Plaintiffs reallege and incorporate Paragraphs 1 through 128 as if fully set forth herein.

- **130.** The First Amendment protects Green's right to circumvent access controls applied to copyrighted works, in the course of security research.
- **131.** The First Amendment protects Green's right to publish information related to security research that involves circumvention.
 - **132.** Green's publication of technological information is core expressive activity.
- 133. As applied to Green, Section 1201 would prohibit Green from engaging in research that would not infringe copyright and without regard for the traditional safeguards that harmonize copyright law with the First Amendment, such as fair use or the idea/expression dichotomy.
- **134.** The statutory exemption for security research, 17 U.S.C. 1201(j), is too narrow and vague to be relied upon by Green and other security researchers.
- **135.** For these reasons, Section 1201 violates the First Amendment as applied to Green.

COUNT IV

SECTION 1201 IS UNCONSTITUTIONAL AS APPLIED TO HUANG (By Huang Against DOJ and Lynch)

- **136.** Plaintiffs reallege and incorporate Paragraphs 1 through 135 as if fully set forth herein.
- **137.** The First Amendment protects Huang's right to use NeTVCR for circumvention of HDCP technology applied to copyrighted works.
- **138.** The First Amendment protects Huang's right to traffic in NeTVCR devices and information.
 - **139.** Huang's publication of technological information is core expressive activity.

- **140.** Publishing information and building and selling NeTVCR will disseminate a valuable speech-enabling tool that will facilitate a vast amount of valuable new expression.
- 141. As applied to Huang, Section 1201 would prohibit Huang from building or using the NeTVCR even in order to engage in circumventions that would not infringe copyright and without regard for the traditional safeguards that harmonize copyright law with the First Amendment, such as fair use.
- **142.** For these reasons, Section 1201 violates the First Amendment as applied to Huang.

COUNT V

SECTION 1201 IS UNCONSTITUTIONAL AS APPLIED TO ALPHAMAX (By Alphamax Against DOJ and Lynch)

- **143.** Plaintiffs reallege and incorporate Paragraphs 1 through 142 as if fully set forth herein.
- **144.** The First Amendment protects Alphamax's right to use NeTVCR for circumvention of HDCP technology applied to copyrighted works.
- **145.** The First Amendment protects Alphamax's right to traffic in NeTVCR devices and information.
 - **146.** Alphamax's publication of technological information is core expressive activity.
- **147.** Publishing information and building and selling NeTVCR will disseminate a valuable speech-enabling tool that will facilitate a vast amount of valuable new expression.
- 148. As applied to Alphamax, Section 1201 would prohibit Alphamax from building or using the NeTVCR even in order to engage in circumventions that would not infringe copyright and without regard for the traditional safeguards that harmonize copyright law with the First Amendment, such as fair use.

149. For these reasons, Section 1201 violates the First Amendment as applied to Alphamax.

COUNT VI

THE DENIAL OF EXEMPTIONS THAT WOULD HAVE APPLIED TO SECURITY RESEARCH VIOLATED THE FIRST AMENDMENT AND THE APA

(By Green against the Rulemaking Defendants)

- **150.** Plaintiffs reallege and incorporate Paragraphs 1 through 149 as if fully set forth herein.
- **151.** The Rulemaking Defendants acted unlawfully by denying portions of the exemption that apply to Green's security research.
 - **152.** The Rulemaking Defendants' denial is contrary to the First Amendment.
- **153.** The Rulemaking Defendants' denial is contrary to Section 1201(a)(1)(B) (D) and the APA.
- **154.** The Rulemaking Defendants' decision to deny portions of the exemption that apply to Green's security research was arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with law.
- 155. The Rulemaking Defendants' decision to deny the exemptions that would have applied to Green's security research exceeded the Register of Copyright's and the Librarian of Congress's competence and experience.

COUNT VII

THE DENIAL OF EXEMPTIONS THAT WOULD HAVE APPLIED TO USES OF NETVCR VIOLATED THE FIRST AMENDMENT AND THE APA

(By Huang and Alphamax Against the Rulemaking Defendants)

156. Plaintiffs reallege and incorporate Paragraphs 1 through 155 as if fully set forth herein.

- **157.** The Rulemaking Defendants acted unlawfully by denying the exemptions that would have protected Huang and Alphamax's creation and use of NeTVCR.
 - **158.** The Rulemaking Defendants' denial is contrary to the First Amendment.
- **159.** The Rulemaking Defendants' denial is contrary to Section 1201(a)(1)(B)–(D) and the APA.
- **160.** The Rulemaking Defendants' conclusion that format-shifting and space-shifting are not likely to be fair uses is contrary to law.
- **161.** The Rulemaking Defendants' decision to deny the exemptions that would have applied to Huang and Alphamax's creation and use of NeTVCR was arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with law.
- 162. The Rulemaking Defendants' decision to deny the exemptions that would have applied to Huang and Alphamax's creation and use of NeTVCR exceeded the Rulemaking Defendants' competence and experience.

PRAYER FOR RELIEF

Wherefore, Plaintiffs pray for judgment against Defendant as follows:

- A. A declaration that the anti-circumvention rule and the anti-trafficking rule are facially overbroad in violation of the First Amendment.
- B. A declaration that the anti-circumvention rule and the triennial rulemaking process are a facially unlawful prior restraint and licensing regime in violation of the First Amendment.
- C. An injunction that enjoins the DOJ and Lynch from enforcing the criminal prohibitions on circumvention and trafficking.

- D. A declaration that the anti-circumvention rule and the anti-trafficking rule violate the First Amendment as applied to Green.
- E. An injunction that enjoins the DOJ and Lynch from enforcing the criminal prohibitions on circumvention and trafficking against Green.
- F. A declaration that the anti-circumvention rule and the anti-trafficking rule violate the First Amendment as applied to Huang.
- G. An injunction that enjoins the DOJ and Lynch from enforcing the criminal prohibitions on circumvention and trafficking against Huang.
- H. A declaration that the anti-circumvention rule and the anti-trafficking rule violate the First Amendment as applied to Alphamax.
- I. An injunction that enjoins the DOJ and Lynch from enforcing the criminal prohibitions on circumvention and trafficking against Alphamax.
- J. A declaration that the Rulemaking Defendants, by refusing to grant the pertinent exemptions, violated the First Amendment and the APA.
- K. An injunction that enjoins the Rulemaking Defendants to grant the pertinent exemptions.
- L. A declaration that the Rulemaking Defendants, by considering factors that do not concern copyright as a basis to deny or narrow exemptions, violated the First Amendment and the DMCA.
 - M. An award of attorney fees, costs, and expenses under 42 U.S.C. 1988.
 - N. Such other relief as the Court deems proper.

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Respectfully submitted by:

/s/ Brian Willen

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