



COMMENTS OF THE ELECTRONIC FRONTIER FOUNDATION REGARDING THE STRATEGY FOR AMERICAN INNOVATION

The Electronic Frontier Foundation (EFF) is grateful for this opportunity to respond to the request by the Office of Science and Technology Policy (OSTP) and the National Economic Council for comments regarding an upcoming update of the *Strategy for American Innovation*. EFF is a nonprofit civil liberties organization that has worked for more than 20 years to protect consumer interests, innovation, and free expression in the digital world. EFF and its more than 27,000 dues-paying members have a strong interest in helping courts and policy-makers strike the appropriate balance between intellectual property and the public interest.

I. Introduction

In this submission, EFF discusses three innovation issues: patents, open access to scientific research, and the “anti-circumvention” provisions of the Digital Millennium Copyright Act (DMCA). For each of these topics, an overly restrictive legal regime threatens innovation by limiting the ability of creators and inventors to build upon the work of others. The Administration has already taken some positive steps (particularly to improve the patent system and promote open access), but more remains to be done. We urge the Administration to lead the movement to improve patent quality, reduce the harm caused by patent trolls, open access to federally funded scientific research, and to support legislative reform to undo the harm caused by Section 1201 of the DMCA.

II. Patents

EFF urges the Administration to take a balanced approach to patent policy, mindful of the costs as well as the benefits of the patent system. Patents can harm innovation in two ways. First, low-quality patents provide an unjustified government monopoly. Such patents limit competition but provide no benefit. Second, patents can be abused as litigation weapons. Some patent assertion entities (PAEs, known colloquially as “patent trolls”) use the extraordinary cost of defending a patent suit to extort settlements. In recent years, patent trolls have filed thousands of cases against small businesses and startups. Most of these cases have involved low-quality software patents.

EFF supports the Administration’s goal of promoting market-based innovation. For the software industry, this goal can only be achieved by addressing patent abuse. Below, we describe the problem with software patents in more detail and propose some actions the Administration can take.

A. Low-Quality Software Patents Harm Innovation.

Software patents are a relatively new phenomenon; the software industry grew from nothing into a mature business without any need for patent protection. For decades, the Patent and Trademark Office (PTO) was generally reluctant to issue patents that covered software. But in 1994, the Federal Circuit opened the floodgates for software patents after it held that an algorithm implemented in a general-purpose computer could be patentable.¹ By 2012, the PTO

¹ See *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994).

was issuing about 40,000 software patents a year, but unfortunately, the quality of these patents has tended to be very low.²

There are many reasons why software-related patents tend to be of low quality. First, software patents tend to have fuzzy boundaries. This means that “they have unpredictable claim interpretation and unclear scope . . . [giving] rise to many situations where technology firms inadvertently infringe.”³ Due to their fuzzy boundaries, software patents are not easily searchable, which leads to the issuing of invalid patents and unintended infringement, and means that software patents do not serve as a resource of knowledge or teaching.⁴

Patent examiners are not able to adequately search the prior art for software claims. For software-related applications, the most relevant prior art will likely include numerous sources—such as open source software code—that are not easily located and searched. Patent examiners spend an average of only 19 hours reviewing each application. With only some of this time available for prior art searching, this is not nearly enough time for a thorough review.⁵

Low-quality software patents feed directly into the PAE business model. Specifically, “there is a business opportunity based on acquiring patents that can be arguably read to cover existing technologies and asserting those patents, litigating if necessary in order to obtain a

² See Christina Mulligan & Timothy Lee, *Scaling the Patent System* (March 6, 2012), NYU Annual Survey of American Law, Vol. 68, p. 289, 2012, <http://ssrn.com/abstract=2016968>.

³ James E. Bessen, Michael J. Meurer, & Jennifer Laurissa, *The Private and Social Costs of Patent Trolls* (September 19, 2011). Boston Univ. School of Law, Law and Economics Research Paper No. 11-45, <http://ssrn.com/abstract=1930272>.

⁴ See generally Shaun Miller and Alex Tabarrok, *Ill-Conceived, Even If Competently Administered: Software Patents, Litigation, and Innovation*, *Econ Journal Watch* 11(1) January 2014: 37-4513, http://mercatus.org/sites/default/files/Dourado_PerspectivesonIP_v2.pdf.

⁵ See Michael D. Frakes & Mellissa F. Wasserman, *Is the Time Allocated to Review Patent Applications Inducing Examiners to Grant Invalid Patents?: Evidence from Micro-Level Application*, NBER Working Paper No. 20337 (July 2014), <http://www.nber.org/papers/w20337>.

licensing agreement.”⁶ One study found that between 2007 and 2011, 46 percent of patent lawsuits involved software patents, accounting for 89 percent of the increase in the number of patent defendants during this timeframe.⁷

Unsurprisingly, since software patents tend to be of low quality, the software industry itself (in contrast to PAEs) treats patent protection as a very low priority. A recent study by the National Science Foundation is informative.⁸ In the information sector (which includes software, Internet, and data processing) only 10 percent of companies found patents either “very” or even “somewhat” important. *Id.* at 3. Those companies rely instead on copyright, trademark, and trade secret protection. *Id.* From 1994-2004, only 20 percent of software startup companies even applied for a patent.⁹ The evidence shows that actual innovators—the companies trying to bring new products and services to the marketplace—do not rely on software patents. Rather, these patents tend to be the tools of patent trolls seeking to tax innovation.

B. Abusive Patent Litigation Harms Innovation.

The increase in software patents has fed an explosion of software patent litigation. As the Administration noted in a recent report, much of this litigation involves patent cases brought by

⁶ Bessen, Meurer, & Laurissa at 24.

⁷ See United States Government Accountability Office, *Assessing Factors That Affect Patent Infringement Litigation Could Help Improve Patent Quality*, 22 (2013), <http://www.gao.gov/assets/660/657103.pdf>.

⁸ See John E. Jankowski, *Business Use of Intellectual Property Protection Documented in NSF Survey*, National Science Foundation InfoBrief (February 2012), <http://www.nsf.gov/statistics/infbrief/nsf12307/>.

⁹ See James Bessen, *A Generation of Software Patents*, Boston University School of Law Working Paper No. 11-31 (June 21, 2011) at 6, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1868979

PAEs.¹⁰ This explosion of litigation has been costly. PAE activity cost defendants and licensees \$29 billion in 2011, a 400 percent increase over \$7 billion in 2005.¹¹ These losses are mostly deadweight, with less than 25 percent flowing to innovation and at least that much going towards legal fees.¹²

The litigation explosion particularly burdens small companies, which often find themselves the targets of these suits.¹³ Litigation-based legal expenses can kill small startups entirely, and the mere threat of those expenses can chill innovation. In a small company, key management and engineers must deal with a PAE claim. Thus, small cash-poor companies become vulnerable targets that lack leverage to deal with a PAE lawsuit, leaving them stuck paying nuisance settlements regardless of the merits of the underlying claim. With small- and medium-sized companies making up so many defendants in PAE suits, such nuisance settlements are widespread. The Administration's innovation policy should include measures to reduce this kind of abusive litigation.

¹⁰ See Executive Office of the President, *Patent Assertion and U.S. Innovation*, 5 (2013), http://www.whitehouse.gov/sites/default/files/docs/patent_report.pdf.

¹¹ Brian T. Yeh, *An Overview of the "Patent Trolls" Debate*, Cong. Research Serv., R42668, at Summary and 2 (2012), https://www.eff.org/sites/default/files/R42668_0.pdf

¹² See *id.*

¹³ One study found that nearly 75 percent of venture capitalists have had their portfolios impacted by litigation from a patent troll. Colleen Chien, *Patent Assertion and Startup Innovation*, New America Foundation (Sept. 2013) at 11, available at: http://www.newamerica.net/sites/newamerica.net/files/policydocs/Patent%20Assertion%20and%20Startup%20Innovation_updated.pdf. More than half of the defendants involved in litigation brought by patent NPEs are companies with annual revenues of \$10 million or less. Colleen Chien, *Startups and Patent Trolls* (Santa Clara Univ. School of Law, Legal Studies Research Paper Series, Accepted Paper No. 09-12, 2012) at 3, available at: <http://ssrn.com/abstract=2146251>.

C. The Administration Should Take Further Action on Patent Reform.

This Administration has already been a leader on patent reform. In February of this year, the President announced a series of Executive Actions aimed at improving the patent system.¹⁴ More remains to be done. EFF urges the Administration to support needed legislative reform to improve patent quality and reduce abusive litigation.

In particular, EFF urges the Administration to support the Innovation Act, H.R. 3309, which passed the House with an overwhelming bipartisan vote in December 2013. While this bill did not address every problem with the patent system, it included a powerful set of proposed reforms that—taken together—will significantly reduce the threat of abusive PAEs. We also urge the Administration to support the expansion of post-grant trial proceedings at the PTO (such as covered business method review) that have proven to be efficient means of removing low-quality patents from the system. Legislative patent reform stalled in the Senate in May. But Congress is likely to take up the issue again soon. The Administration should be a leader in that process.

III. Open Access

Our innovative future relies upon understanding the knowledge of the past and present. Unfortunately, scholarly papers are often locked up behind expensive paywalls, strict copyright regimes, and unusable formats. For this reason, EFF urges the Administration to not only follow through with its agenda to provide public access to taxpayer-funded research, but also to make sure future policies allow for truly open access, reuse, and innovation.

¹⁴ See Press Release, Off. of Press Sec'y, *Fact Sheet - Executive Actions: Answering the President's Call to Strengthen Our Patent System and Foster Innovation* (Feb. 20, 2014), <http://www.whitehouse.gov/the-press-office/2014/02/20/fact-sheet-executive-actions-answering-president-s-call-strengthen-our-p>.

In February of 2013, the Director of the OSTP, Dr. John Holdren, issued a public access memorandum,¹⁵ requiring each federal agency with a research budget of \$100 million or more—22 agencies in total—to put in place a public access policy that allows for free access to and reuse of federally funded scholarly research within 12 months of original publication. This policy builds off the similar, highly successful policy of the National Institutes of Health, instituted in 2008.

While each agency has submitted its respective proposal to the OSTP, only one—the Department of Energy's (DOE) public access plan—has been publicly announced.¹⁶ The DOE plan creates a repository, PAGES, that hosts metadata about research funded by the agency, and links to scholarly articles on original journal publishers' websites. If the paper is not available on a publisher's site, PAGES will host the full article after a 12-month embargo. While each agency and the OSTP are free to explore public-private initiatives like this, the results—as seen with the DOE's plan—are far from ideal.

First, the storage of articles in multiple repositories makes it difficult to run important computational analysis or text mining on such research—a task that would be far more productive if the full-text, searchable articles were in one central repository. Digital publishing opens up a host of potential beyond the reported research itself, allowing the exploration of research on a broader, comparative level. This sort of innovation is stifled through disjointed approaches like the DOE's.

¹⁵ Available at: <http://www.whitehouse.gov/blog/2013/02/22/expanding-public-access-results-federally-funded-research>

¹⁶ Available at: <http://www.energy.gov/downloads/doe-public-access-plan>

Second, under the DOE plan, publishers retain full copyright over the articles; there is no open licensing policy to encourage and allow for downstream reuse. We recommend urging agencies to mandate publicly funded research to be licensed in a way that allows for maximum flexibility—for example, using a Creative Commons Attribution license—which ensures that the paper’s authors get the credit they deserve, while also fostering the free flow of information upon which truly collaborative and innovative science relies.

Third, a 12-month embargo period has become the norm, as per the National Institutes of Health’s policy, but is not the ideal. We encourage the Administration to push for shorter embargo periods, knowing that the public benefits most from quicker—preferably immediate—availability.

Access is only one of many goals of a public access policy. While efforts to make scholarly papers publicly available should be applauded, the full realization of open access can only come if such work is organized, searchable, and reusable, with as few technical and copyright barriers as possible.

IV. DMCA Section 1201

As counsel and as friends of the court, we have been involved in most of the leading court cases interpreting the “anti-circumvention” provisions of the Digital Millennium Copyright Act, 17 U.S.C. § 1201. Today, we regularly counsel security researchers, innovators, and ordinary Internet users regarding Section 1201. We also have extensive experience with the 1201 exemption process.

Based on this experience, we have seen that Section 1201 has not been used as Congress envisioned. Section 1201 of the DMCA 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.¹⁷ Here are just a few examples.

A. 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, and to choose competitive add-on or alternative technologies that interoperate with the goods they buy, because innovators were able to develop and distribute such technologies. Section 1201 threatens those freedoms.¹⁸

The anti-competitive effect of Section 1201 became evident early on with respect to DVDs. 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, the DVD Copy Control Association (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 three-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 in the DVD space.

¹⁷ See <https://www.eff.org/pages/unintended-consequences>

¹⁸ See Dan L. Burk, *Anticircumvention Misuse*, 50 UCLA L. REV. 1095, 1139 (2003)

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.¹⁹ In order for replacement parts and compatible accessories to function, they must “access” the code inside. If unauthorized access amounts to circumvention of a Technological Protection Measure (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.²⁰ 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 that render pictures unreadable in competitors’

¹⁹ 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>.

²⁰ 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/>.

photo-editing programs, preventing consumers from editing their own pictures with their preferred software.²¹

Similarly, Apple has relied on the DMCA to “lock” iPhone owners into purchasing software exclusively from Apple’s own App Store.²² 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.”²³

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. The infamous Lexmark litigation is case in point. Lexmark, the

²¹ 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.

²² 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/>.

²³ 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>.

second-largest laser printer maker in the U.S., 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.²⁴

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 360.²⁵ 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 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.

²⁴ 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).

²⁵ 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>.

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.²⁶

B. Section 1201 Jeopardizes Fair Use.

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 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. 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, stifling in turn the innovative new products that rely upon those rights.

The DMCA, however, prohibits the creation or distribution of such tools, even if they are needed to enable innovative 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.

²⁶ 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.

For example, e-books often include Digital Rights Management (DRM) technology that prevents people who are blind or visually impaired from running books that they have lawfully purchased through a text-to-speech converter. Similarly, Internet-distributed video, 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.²⁷ 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 who develop these technologies remain under threat.

DMCA lawsuits have hampered many other legitimate fair uses. Once a video is copied to a computer—an act that may require circumvention—video creators can remix movie clips into original YouTube videos, frequent travelers can load movies into their laptops, and DVD owners can skip the otherwise “unskippable” commercials that preface certain films. Unfortunately, DMCA lawsuits targeting makers of DVD copying tools hampered these and other fair uses, such as format-shifting. For example, 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 Content Scramble System (CSS) copy-protection system and added numerous additional

²⁷ 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_copy_right_reform_u_s_law_makes_digital_media_inaccessible.html

control measures. Nevertheless, a federal court ruled in August 2009 that, even if the uses enabled by RealDVD were lawful fair uses, the DMCA forbids the distribution of tools like RealDVD.²⁸ The same anti-innovation tactics have also been applied to streaming.²⁹

C. The Costs of Section 1201 Do Not 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 deterred infringement. Sadly, they do not.³⁰ 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.

Moreover, despite widespread infringing activity, legitimate media sources manage—year after year—not only to stay afloat, but also 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.”³¹

²⁸ *Real Networks, Inc. v. DVD Copy Control Ass’n*, 641 F. Supp. 2d 913, 942 (N.D. Cal., 2009).

²⁹ *RealNetworks, Inc. v. Streambox, Inc.*, No. C99-2070P, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000).

³⁰ 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>

³¹ 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>

D. 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 they are too narrow and too brief. And 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 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. Without expert assistance, individuals cannot reasonably gather the evidence and devote the time necessary to participate successfully in the DMCA rulemaking process. And even if they do succeed, they must be prepared to make the case again, three years later.

The exemptions that are granted continue to be unnecessarily narrow. For example, security researchers had sought a DMCA exemption in 2003 in order to facilitate research on

dangerous DRM systems.³² In 2006, the Librarian granted an exemption to the DMCA for researchers examining copy protection software on compact discs.³³ 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.³⁴ 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.³⁵

E. What Can the Administration Do to “Fix” Section 1201?

Much of the action needed to remedy the harms of Section 1201 must take place in Congress. 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. In particular, using or distributing tools for circumvention should not be a violation unless the use or distribution is intended to facilitate copyright infringement. We strongly support the Unlocking Technology Act, introduced last year by Representative Zoe Lofgren and a bipartisan group of sponsors. We believe the Administration should join us.

³² Recommendation of the Register of Copyrights in RM 2002-4, Oct. 27, 2003, 87-89, <http://www.copyright.gov/1201/docs/registers-recommendation.pdf>.

³³ 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>.

³⁴ Comments of Prof. J. Alex Halderman, <http://www.copyright.gov/1201/2008/comments/halderman-reid.pdf>.

³⁵ 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>.

A much less preferable alternative would be to urge Congress to reform the DMCA so as to authorize the Copyright Office to craft exemptions that would include the 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.

In the meantime, the Administration should urge the Librarian of Congress to reform the triennial rulemaking process. 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 technology functions and how widely it is deployed; and (2) demonstrate by a preponderance of the evidence that continuing DMCA protection is necessary to the market viability of the work.

- *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.

V. Conclusion

EFF again thanks the Office of Science and Technology Policy and the National Economic Council for the opportunity to comment regarding the upcoming update of the *Strategy for American Innovation*.

Respectfully submitted,

Electronic Frontier Foundation

Corynne McSherry

Intellectual Property Director

Daniel Nazer

Staff Attorney and Mark Cuban Chair to Eliminate Stupid Patents.

Adi Kamdar

Activist

September 23, 2014