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**Before the
U.S. Senate, Committee on the Judiciary
Subcommittee on Intellectual Property**

on

**“The Digital Millennium Copyright Act at 22: What is it, why was it enacted, and where
are we now?”**

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Chairman Tillis, Ranking Member Coons, and Members of the Committee, thank you for inviting me to participate in this hearing on the DMCA at 22. I am a law professor at Harvard, where I teach intellectual property courses, including copyright. This written statement elaborates on my oral testimony.

I would like to give you some numbers that will sound like they don't go together to demonstrate what §512 has meant for creativity and innovation online. I work with a nonprofit, the Organization for Transformative Works (OTW), that doesn't have a single paid employee. With a budget of under \$400,000 per year, it operates a website for user-generated content that currently has over four million works from over a million registered users. Those millions of works received 1.12 billion page views per month, as of early this year. That's more than double what it was only three years ago, and substantial growth continues.

Here's the number that may be really surprising given the subject of this hearing: we get less than one DMCA notice per month, and most of those notices are invalid, such as attempts to claim rights in a title or name. At the cost of significant amounts of volunteer lawyer time—something very few services can afford—we carefully review each notice we receive and explain to the senders of the invalid notices why their claim is mistaken. Unfortunately, our experiences with mistaken and abusive notices designed to suppress noninfringing and critical speech are far from unique.

Empirical research reveals that most of the internet service providers who rely on §512 are like us: receiving relatively low levels of notices and handling them individually. There just aren't that many entities receiving millions of notices. While market pressures and business decisions have led a few large sites like YouTube to more filter-based systems, it is important not to treat YouTube as a model for the internet at large—unless the only online service we want to survive is YouTube.

If there is one message I would ask the members of the Committee to take away today, it is that most beneficiaries of §512 are not Google or Facebook. There are serious problems of market concentration in the content and telecommunications industries, but the DMCA enables the competition that exists. If Congress changes the DMCA to target Google and Facebook, or

because of rogue overseas sites that already aren't complying with the DMCA to begin with, it will ensure that only Facebook, Google and pirate sites survive, making the problem of market concentration even worse without protecting creators. Most service providers don't need and can't get expensive filtering technology. A mandate for that, whether called "staydown" or something else, would destroy the small and medium entities that are vital to innovation, creativity, and competition on the internet.

The system is by no means perfect—there remain persistent problems with invalid takedown notices used to extort creators or suppress political speech—but, like democracy, it's better than the alternatives that have been tried. In terms of where the case law has gone, there are cases I think are right and cases I think are wrong, which is about what you'd expect from a mature area of the law. Where some plaintiffs and some defendants have deep pockets and the ability to litigate every small issue, they are going to find ambiguities. The only way to stop that dynamic would be to provide internet service providers with absolute immunity for their acts, and even that wouldn't avoid all disputes.

The written testimony that follows addresses these issues in more detail, and also covers section 1201. Section 1201 is broken: it is mostly used to suppress competition rather than protect copyrighted works from infringement. It would benefit from a requirement of some nexus between circumvention and copyright infringement. Otherwise it will continue to be used to prevent diabetics from getting information from their own medical devices and researchers from investigating security vulnerabilities in voting machines.

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I. Section 512

- A. Section 512 has helped enable an explosion of creativity from both traditional and new creators.

Congress did not create the §512 safe harbor for the purpose of benefiting ISPs in themselves. It created the safe harbor to avoid the crushing liability that would have prevented them from becoming platforms for individuals to express themselves, build communities, and take advantage of the new opportunities created by the reach of the internet.

As set forth in §512(m), Congress was concerned to avoid drafting service providers as private arbiters of copyright cases, especially given difficult questions of ownership and infringement that were likely to arise. While the internet has changed in multiple ways, the safe harbors have been vital to the success of U.S. entities, and copyright owners have developed increasingly successful business models online, bolstered by a robust notice and takedown practice where necessary.

In evaluating the success of §512, we should ask: what is the state of “the progress of Science,” which is the constitutionally founded goal of copyright. That state is clearly strong, as the continuing explosion of content—free, ad-supported, and paid—online indicates. The profits of the motion picture, video game, and software industries continue to grow; more books are being published than ever; and new platforms for text, video, music, and images have created a more diverse expressive ecosystem than ever before.

1. Creativity and creative sectors are thriving, not despite but because of the online environment.

Looking at almost any area of the entertainment industry, new content is growing at a tremendous rate. The number of books published is increasing; book revenues are increasing; the number of Americans working as writers is increasing; and print sales are increasing, largely as the result of online sales.¹ Full-time authors saw their median income increase 13% since 2013.² There were 1700 films produced worldwide in 1995; now it’s 7000, with an increase from 466 in 2009 to 821 in 2017 coming from the US. Revenues from video content, including box office returns, keep increasing, as do the number of scripted shows produced for television, along with new sources of revenue for video such as YouTube and Twitch streaming.³ Music industry revenues have also been increasing since 2014, spurred by streaming music.⁴ The amount and variety of music available to consumers keeps growing.⁵ The number of Americans who report that their primary occupation is “musician” has grown to 60,000, with 45% more independent musicians in 2014 than there were in 2005. The video game industry is booming.⁶ Household

¹ Michael Masnick & Leigh Beadon, *The Sky is Rising* 25-26 (2019)

² *Id.* at 29-30.

³ *Id.* at 16-24.

⁴ *Id.* at 9-12.

⁵ *Id.* at 5-7.

⁶ *Id.* at 32-40.

spending on entertainment is increasing and both the legitimate availability and the variety of content is exploding. This very abundance means that individual creators do face competition from other creators, but that is a result of expanding sources of creativity, not of copyright infringement.⁷

As the Writers Guild of America (West) told the FCC in 2016:

In September 2015, CBS Chairman and CEO Les Moonves told Vulture, “Look at the CBS revenues [and] what the network has done over the last 20 years. Our profits have gone up considerably. All these technology initiatives that supposedly were going to hurt us have actually helped us. ...” This statement stands in sharp contrast with how technological developments are often portrayed by media companies in front of [government agencies].... Despite [the invalidation of technical measures to prevent copying of broadcast television] the most watched and valuable programming remains on broadcast television years after the digital transition. ...

... As the Recording Industry Association of America has said “the best anti-piracy strategy is a vibrant legitimate marketplace rich with content and innovative business.” The results of the open Internet support this strategy. According to Sandvine, Netflix now accounts for 37% of downstream Internet traffic in North America, and in combination with Amazon Video, iTunes and Hulu, account for close to 50% of traffic, while BitTorrent represents only 4.4% of total traffic during peak periods and only 5% of total traffic during the entire day.⁸

The success of the safe harbors in enabling creativity and legitimate business models based on monetizing licensed works is clear. At the dawn of the internet era, large copyright owners contended that, absent automatic secondary liability for internet conduits, no one would put “cars” on the “information superhighway.” They were wrong. The dynamic worked in the opposite way: with §512, licensed digital models continue to grow, bringing new creators and new audiences together.

2. Section 512 enables platforms that support and sustain creativity and innovation of all kinds.

There are many predicates for successful markets, but §512 is one of them because it has helped many new services thrive and compete, allowing both service providers and copyright owners—large and small—to experiment with various ways of finding their audiences. Congress intended

⁷ Professional photographers in particular face price pressure from amateurs and low-cost stock photo agencies, but expanding copyright would not reverse those market changes. Jessica Silbey, Eva E. Subotnik & Peter DiCola, *Existential Copyright and Professional Photography*, 95 *Notre Dame L. Rev.* 263, 324 (2019) (explaining that lower media budgets and media consolidation have diminished photographers’ bargaining power, along with alternatives such as amateurs; “more perfect copyright enforcement or broader copyright protection, a frequent call among intellectual property legislative advocates, will not fix these problems to the benefit of professional photographers”) (footnote omitted).

⁸ Reply Comments of Writers Guild of America, West, Inc., before the Fed. Commc’ns Comm’n, *In the Matter of Expanding Consumers’ Video Navigation Choices*, MB Docket No. 16-42, & *Commercial Availability of Navigation Devices*, CS Docket No. 97-80, at 2-3, 9-10 (footnotes omitted).

that, “by limiting the liability of service providers, the DMCA ensures that the efficiency of the Internet will continue to improve and that the variety and quality of services on the Internet will continue to expand.”⁹ And it worked: By allowing service providers to launch without either rigid requirements for content filtering or potentially unlimited liability, undreamed-of services have provided new kinds of value to people around the world, from Pinterest to Wattpad to DeviantArt to the OTW’s noncommercial website.

Section 512 has allowed a variety of innovative models for supporting creativity. The OTW’s website is only one example in the noncommercial sector, featuring works that comment on and transform existing works, adding new meaning and insights—from reworking a film from the perspective of the “villain” to retelling the story as if a woman, instead of a man, were the hero. The community created by making and sharing these noncommercial works has immense benefits for participants, including building language and other important practical skills and allowing people to find supportive communities—a number of people who wrote to us about the importance of transformative works said that they are alive today because of the people they met when they became transformative creators.¹⁰

On the commercial end of the spectrum, millions of creators, 80% of whom are women, sell on Etsy, one important site that needs the certainty of §512 to offer a platform to this new generation of artists. Similarly, Shapeways supports professional designers selling their goods online. Someone who wants to print a nylon dress can buy a half-million dollar 3D printer, or they can go to a service like Shapeways. Section 512 allows Shapeways to offer this platform without taking unsustainable liability risks. These are only two of the platforms that have lowered barriers to entry for independent and individual artists. Without such companies relying on §512, millions of creators and artists would not have access to national or global or even local markets.

There are other, hybrid models such as Ithaka/Artstor, which allows libraries and academic institutions both to provide content and to receive it from others, allowing them to integrate teaching materials across multiple institutions. Artstor couldn’t have created this model without §512 because of the crushing liability that it would have risked in hosting such a project. It can’t monitor all the content; it has to rely on the institutions that participate, and on §512.

The §512 safe harbors allow a wide variety of types and sizes of OSPs to function, and the flexibility of the notice-and-takedown system allows a wide variety of content creators to address infringement. There is no one-size-fits-all appropriate system, as participants in the DMCA notices best practices group working with the PTO/NTIA concluded.¹¹

3. The courts have generally done a good job interpreting §512.

⁹ S. Rep. No. 105-190, at 8 (1998).

¹⁰ See Comments of the Organization for Transformative Works, https://www.uspto.gov/sites/default/files/documents/Organization_for_Transformative_Works_Comments.pdf.

¹¹ Nat’l Telecomms. & Info. Admin., DMCA Notice-and-Takedown Processes: List of Good, Bad, and Situational Practices (2013)

While everyone can identify specific decisions with which they disagree, courts have generally done a good job interpreting the coverage of the §512 safe harbors, particularly in adopting flexible approaches to new entities and activities.¹² Congress did not anticipate every development online, but it did anticipate that new intermediaries would arise, and §512 is and should be available to them.

Section 512 provides rules that are more predictable than classic secondary liability as developed by courts, allowing copyright claimants, service providers, and content providers to understand their rights and obligations. As a synthesis of qualitative and large-scale quantitative research on notice-and-takedown concluded,

Though it shows strains, the law continues to provide rightsholders with a copyright enforcement alternative that is cheaper and easier to use than lawsuits. Though use of automated systems has reduced human-reviewed processing, non-automated processing is still the norm for most OSPs and continues to work successfully.... Though rightsholders and OSPs generally use some accuracy checks today, we identified a clear need for better mechanisms to check the accuracy of algorithms, more consistent human review, and a willingness by both rightsholders and OSPs to develop the capacity to identify and reject inappropriate takedown requests.¹³

Some critics have suggested that the courts have unduly narrowed the concept of “red flag” knowledge, which can remove an OSP from the protections of certain safe harbors. To the contrary, courts have carefully limited the concept to implement §512(m)’s rule that service providers need not search for infringing content. They can screen out pornography or videos of executions without fear that their attempts to remove harmful content will be held against them in a copyright case. “Red flag” knowledge is an objective standard that serves as a surrogate for actual knowledge. To be chargeable with knowledge, a service provider needs actual knowledge of specific infringing material, not merely that there is infringement somewhere on its platform, and it follows that red flag knowledge must also relate to specific infringing material, not to the existence of infringing material generally.¹⁴

Because circumstances can vary so much online, what constitutes a “red flag” for infringement is context-specific. For example, a full length movie on Dropbox is perfectly likely to be a legitimate backup of a purchased movie, which is what I do for my iTunes purchases because of bad past experiences with lost content. In other cases, a video that gets 10,000 hits in an hour

¹² See, e.g., *Viacom Intern., Inc. v. YouTube, Inc.*, 676 F.3d 19, 38-40 (2d Cir. 2012) (holding that YouTube’s various activities not involving manual selection for licensing to a third party, including transcoding video and generating lists of related videos, were “by reason of” user storage).

¹³ Jennifer M. Urban, Joe Karaganis & Brianna L. Schofield, *Notice and Takedown in Everyday Practice* 3 (2016).

¹⁴ E.g., *Viacom*, 676 F.3d at 32-33 (generalized knowledge that infringement is taking place is insufficient); *id.* at 35 (“willful blindness” requires “deliberate effort to avoid guilty knowledge”); *UMG Recordings, Inc. v. Shelter Capital Partners LLC*, 667 F.3d 1022, 1022, 1037-38 (9th Cir. 2011) (“merely hosting a category of copyrightable content, such as music videos, with the general knowledge that one’s services could be used to share infringing material, is insufficient to meet the actual knowledge requirement”); *UMG Recordings, Inc. v. Veoh Networks, Inc.*, 665 F. Supp. 2d 1099, 1108 (C.D. Cal. 2009) (“[I]f investigation of ‘facts and circumstances’ is required to identify material as infringing, then those facts and circumstances are not ‘red flags.’ ”).

might be a video of a recent police shooting. User-applied labels aren't necessarily trustworthy, either: a number of Viacom clips posted on YouTube as stealth marketing by Viacom's marketing department apparently fooled Viacom's own enforcement department, which sent takedown notices.¹⁵ That sort of error makes clear why service providers rarely have true "red flag" notice of infringement.

Courts have sometimes been insufficiently specific about the requirement that "financial benefit" should be attributable to the infringement, rather than to the general presence of user-provided content. Congress intended to preserve multi-use platforms with the DMCA; the fact that users are attracted to platforms that can be used to infringe is therefore irrelevant unless there is evidence that the OSP receives a financial benefit because of the infringing use, not because of use in general.

In general, courts have reached the right conclusions with respect to "right and ability to control," eschewing an interpretation that would find such an ability from the mere ability to comply with the takedown procedure. Excluding OSPs from the safe harbor because they can comply with DMCA notices is a contradiction in terms. As the Second Circuit Court of Appeals explained, the "right and ability to control" exists only when an OSP "exerts substantial influence on the activities of users," rather than merely having the ability to terminate an account.¹⁶ Moreover, courts have usually recognized that "right and ability" should be evaluated in the context of an OSP's current architecture, rather than by considering potential designs.¹⁷

Winston Churchill famously said that "democracy is the worst form of government except for all those other forms that have been tried from time to time." Section 512's basic scheme has this character: while there are important implementation issues, the basic framework, in which copyright owners are responsible in the first instance for identifying infringements and service providers who promptly respond to legitimate claims are protected against crushing liability, is better than most alternatives that have been proposed. Adding new flourishes would make it simple to litigate new market entrants into bankruptcy.

Rules requiring years of expensive discovery, depositions, and factfinding by a jury would ensure that new services that are actually doing the right thing will be destroyed by the costs of *proving* this in the face of expensive litigation. "For many Internet companies, the litigation itself can be fatal even if they are complying fully with copyright law. For these reasons, content industries can often 'win' simply by filing litigation so long as the litigation is expensive."¹⁸ It is for this reason that clear rules and an early ability to resolve §512 issues on dispositive motions are important, not just the results of fully litigated cases. Section 512 has ambiguities, but suggested replacements are by and large much worse.

¹⁵ Peter Decherney, *Hollywood's Copyright Wars: From Edison to the Internet* 223 (2012).

¹⁶ 676 F.3d at 30.

¹⁷ *Luvdarts, LLC v. AT&T Mobility, LLC*, 710 F.3d 1068 (9th Cir. Mar. 25, 2013).

¹⁸ John Blevins, *Uncertainty As Enforcement Mechanism: The New Expansion of Secondary Copyright Liability to Internet Platforms*, 34 *Cardozo L. Rev.* 1821, 1830 (2013); see also Michael A. Carrier, *Copyright and Innovation: The Untold Story*, 2012 *Wis. L. Rev.* 891 (explaining how copyright lawsuits can be used to crush innovation and suppress competition to entrench existing market participants).

- B. Counting the numbers of notices requires vital context: Most sites that host user-generated content and rely on §512 receive very few valid takedown notices.

There are many DMCA notices sent in part because there is a lot of internet. Google indexed between 58.5 and 67 billion pages in the last month, many orders of magnitude greater than the number of URLs listed in notices it received.¹⁹ Of those notices, many millions relate to sites that are already noncompliant with §512, as discussed below. Additionally, algorithmic and automated notice generation means that tens of millions of notices are generated in the absence of any actual infringing content.²⁰

It is more important, however, to recognize that the high absolute numbers of notices are not evenly distributed. Jennifer M. Urban, Joe Karaganis, and Brianna L. Schofield have carried out extensive empirical work on the functioning of notice and takedown.²¹ Their research included in-depth interviews with multiple intermediaries, including websites that host millions of pieces of user-generated content.

The vast majority of services are like the OTW, what Urban et al. call “DMCA Classic”: we receive relatively few notices of claimed infringement, few of them are automated, and we subject them to individual review for validity.²² In the rare case that the notice complies with the DMCA and doesn’t raise obvious fair use issues or assert non-copyright claims, our abuse team will remove the accused content and inform the user. Our experience with small-scale senders, consistent with the experience of many other OSPs, is that small-scale senders often consider DMCA claims to be a catch-all for objections such as that a work on the OTW’s Archive has the same title as a different work they’ve published for sale or that they don’t wish their name to be used in a work. Our experience with large-scale senders is that many are careful to avoid challenging non-exact copies, but unfortunately some do send takedown notices based on unhelpful metadata (e.g., title of a work even though the content is clearly different from that of

¹⁹ <http://www.worldwidewebsite.com/> (visited Feb. 9, 2020) (see site for discussion of methodology). By contrast the last publicly reported numbers are that Google receives 75 million URL removal requests per month. Gina Hall, How many copyright takedown notices does Google handle each day? About 2 million, Mar. 7, 2016, <https://www.bizjournals.com/sanjose/news/2016/03/07/how-many-copyright-takedown-notices-does-google.html>

²⁰ Additional Comments, Computer Communications Industry Ass’n, In re Section 512 Study: Request for Additional Comments, Docket No. 2015-7at 5 (“[S]ome enforcement vendors pack takedown demands with URLs where no infringing content resides, based on guesses or algorithmic generation, such that DMCA agents may receive numerous demands for allegedly infringing content that does not exist.”); Andy, Pirate Site With No Traffic Attracts 49m Mainly Bogus DMCA Notices, TorrentFreak, Feb. 19, 2017, <https://torrentfreak.com/pirate-site-with-no-traffic-attracts-49m-mainly-bogus-dmca-notices-170219/>.

²¹ Jennifer M. Urban, Joe Karaganis, & Brianna Schofield, Notice and Takedown in Everyday Practice (Mar. 2017) (“Everyday Practice”); Jennifer M. Urban, Joe Karaganis, & Brianna Schofield, Notice and Takedown: Online Service Provider and Rightsholder Accounts of Everyday Practice, 64 J. Copyright Soc’y U.S.A 371 (2017) (“Accounts”).

²² See Urban et al., Everyday Practice, *supra*, at 2 (documenting gap between “DMCA Classic” OSPs that receive few notices and engage in human review and large-scale recipient OSPs). The OTW was not one of the studied organizations, but its experience puts it into the authors’ “DMCA Classic” category.

the copyright claimant’s work). There appear to be no particular barriers to any type of entity using the notice and takedown system.²³

Crucially, DMCA Classic sites are not all small. Some very big sites, like ours, Wikipedia, and the blogging site Medium, are DMCA Classic sites receiving relatively few copyright claims and a relatively large proportion of invalid claims out of those few. Kickstarter, the crowdfunding portal, is another example: In 2015, it received copyright infringement claims targeting only 215 projects, despite having hosted hundreds of thousands of them. Of those, Kickstarter only disabled access to 78: 64 percent of the copyright infringement claims were invalid.²⁴ Even Amazon’s large Kindle Direct program is DMCA Classic: half of the takedown requests it receives for Kindle Direct are from competitors trying to suppress another person’s book.²⁵ Automattic, which runs the popular blogging site WordPress used by millions of speakers, is another DMCA Classic site, and 10% of the properly formatted notices it receives are abusive, involving “clear fair uses, clearly un-copyrightable content or ... clear material misrepresentations.”²⁶

In summary, DMCA Classic sites are “dominant” in the online content ecosystem in numerical terms, even among sites with very large amounts of user-generated content.²⁷

There is another, much smaller group of sites that receives a large number of notices, and that has reacted to this influx by developing automated systems to process notices and sometimes has developed other practices, such as custom built-systems to allow copyright owners to claim and monetize content. These DMCA-Plus ISPs go beyond §512, but they are a small and highly distinctive category.

C. There are persistent problems with mistaken and abusive takedown notices.

Empirical research has repeatedly found that a substantial number of takedown notices are invalid or dubious, either because they target noninfringing uses or because the named content simply isn’t present at the location specified in the notice.²⁸ Of course, there are many valid

²³ See *id.* at 110 (“If there are barriers to individuals and small businesses using notice and takedown, they are not apparent in the Google Image Search data. Individuals and small businesses made substantial use of the takedown system.”).

²⁴ Engine Additional Comments, 3-4.

²⁵ Stephen Worth, Assoc. Gen. Couns. of Amazon.com, Inc., Testimony at the U.S. Copyright Off. Section 512 Study, Public Roundtable (May 13, 2016) (transcript available in the U.S. Copyright Office website). (“[W]ith Kindle Direct publishing, authors routinely try to climb to the top spot in their category . . . by issuing bogus notices against higher ranking titles. And this for us actually accounts for more than half of the takedown notices that we receive.”).

²⁶ Joe Gratz, U.S. Copyright Office Section 512 Public Roundtable 05-12-2016, transcript at 157-58.

²⁷ Brianna Schofield, https://www.copyright.gov/policy/section512/public-roundtable/transcript_05-02-2016.pdf, at 109.

²⁸ E.g., Jon Penney, Privacy and Legal Automation: The DMCA as a Case Study, 22 *Stanford Tech. L. Rev.* 412 (2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3504247; Daniel Seng, “Who Watches the Watchmen?” An Empirical Analysis of Errors in DMCA Takedown Notices (January 23, 2015), <http://ssrn.com/abstract=2563202> (empirical analysis of 50 million takedown notices submitted to Google determined that, at a lower bound using the most forgiving measures, 8.4% had serious technical errors, and an additional 1.4% had serious substantive errors,

notices at well—at least for DMCA-Plus recipients—but the absolute numbers of questionable or outright abusive takedowns are worrisome.

As Urban and her coauthors explained, “[n]early every OSP recounted stories of deliberate gaming of the DMCA takedown process, including to harass competitors, to resolve personal disputes, to silence critics, or to threaten the OSP or damage its relationship with its users. And although the proportion of problematic requests varied by type of OSP, every OSP also told stories of takedowns that ignored fair use defenses or that targeted non-infringing material.”²⁹

In an Appendix, I have provided a sampling of some abusive takedowns that have attracted media comment, including many with important political and cultural value. There is much that we will never know, because most takedown recipients are too afraid of crushing liability to dispute a takedown, even when they have an iron-clad defense. The OTW’s experience, like that of other DMCA Classic sites, is also that a very high *percentage* of notices—in our case, the vast majority—are ill-founded. DMCA Classic sites are very different from the picture sometimes painted of rampant infringement everywhere.

D. Rogue sites that are already not complying with §512 provide no justification for changing §512.

There are rogue sites dedicated to copyright infringement online. They do not comply with §512. When copyright owners sue those sites, they win.³⁰ Copyright owners don’t always win when they sue sites that have a substantial amount of noninfringing content, and that’s exactly as it should be, because those sites serve valuable functions and infringement claims should be targeting only the infringement, not the entire site.

Changing §512 to be more onerous for compliant websites will not make rogue sites behave better. If anything, by making it harder for §512-compliant sites to survive, it may increase the attractions of rogue sites.

amounting to nearly 5 million erroneous takedown demands). A study based on a random sample of takedown notices, taken from a set of over 108 million requests submitted to the Lumen archive over a six-month period, concluded that nearly 30% of takedown requests were of questionable validity, for reasons including misidentification of content and potential fair use. For Google Image Search in particular, “[s]eventy percent of the requests raised serious questions about their validity, including a significant number related to ‘improper’ subject matter, fair use concerns, copyright ownership issues, and potentially inaccurate identification of the allegedly infringing material.” Even after excluding the largest (and problematic) sender, 15.1%, or nearly one in six, notices asserted non-copyright interests, and one in nine raised fair use issues. Relatedly, “the Image Search requests were much more likely to implicate individual expression by targeting posts on social media, personal websites, and blogs, rather than the file-sharing or cyberlocker sites more commonly targeted in requests sent to Google Web Search.” Urban et al., *Everyday Practice*, at 106-10.

²⁹ Urban et al., *Accounts*, supra, at 389.

³⁰ See, e.g., *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005); *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001); *Columbia Pictures Industries v. Fung*, 710 F.3d 1020 (9th Cir. 2013); *UMG Recordings, Inc. v. Escape Media Group, Inc.*, 2015 WL 1873098 (S.D.N.Y. Apr. 23, 2015).

- E. Given these facts, proposed filtering mandates are unduly burdensome and will still not solve the problems targeted by their proponents.

The U.S. advantage in technological innovation requires continued flexibility.³¹ Traditionally, copyright-related legislative intervention into ongoing technological developments has been useless at best and counterproductive at worst. Copyright protection for chip “mask works,” which quickly became a dead letter because of technological change, is an example of the former, while the clunky mandatory copy protections on digital audio recorders imposed by Congress probably contributed to the failure of the medium.

Filtering every user submission—also promoted as “notice-and-staydown”—would make it impossible for new services to launch and for many existing services, such as the OTW’s successful nonprofit website, to continue to operate. Like most other online services outside of the dominant sites, the OTW does not have, and could not build, word or hash filtering that could identify unauthorized, infringing works and distinguish them from noninfringing works.

A general filtering requirement for intermediaries that host user-generated content is fundamentally mistargeted. It takes a solution that has benefits for a few big copyright owners and big internet services and demands its imposition on other intermediaries—most of which don’t have a big infringement problem in the first place and many of which couldn’t continue to operate if they had to bear the costs of developing and constantly updating a filtering system. Ironically, because Europe is hostile to Facebook and YouTube, it has adopted a solution that ensures that Facebook and YouTube will continue to dominate, since they are the ones most likely to survive filtering and licensing requirements.³²

1. Content ID is not a model for the internet.

Content ID—YouTube’s specialized program for audiovisual content hosted on its own servers—is often spoken of as a potential legislative model. It is not.

First, it is implausible to imagine that Content ID would work as it did if Congress wrote the specifications. Private models reliant on negotiations, tweaking, and compromises that may not have a purely logical basis translate very poorly into legislation with its demands for equality, non-vagueness, and due process.³³ The experience of the TEACH Act, which the Copyright

³¹ See, e.g., Josh Lerner, *The Impact of Copyright Policy Changes on Venture Capital Investment in Cloud Computing Companies 1* (2011), available at http://www.analysisgroup.com/uploadedFiles/Publishing/Articles/Lerner_Fall2011_Copyright_Policy_VC_Investments.pdf (noting U.S. advantage in cloud computing services over European countries and connecting this advantage to the legal environment).

³² Europe’s newly adopted rules do exclude sites run by nonprofits, such as Wikipedia and the OTW’s archive, and they purport to allow small startups a few years to become compliant with filtering and licensing requirements, but given how quickly websites can expand, the minimal exceptions for startups are unlikely to help. See Rachel Wolbers, Transcript, at 329-30, Library of Congress, United States Copyright Office, Section 512 Study Roundtable, Monday, Apr. 8, 2019.

³³ See Rainey Reitman, *The Kafkaesque Battle of Souseek and PayPal, and Why Free Speech Defenders Should be Worried About Payment Networks*, Feb. 25, 2016, <https://www.eff.org/deeplinks/2016/02/kafkaesque-battle->

Office has recognized imposes requirements that nonprofit educational institutions acting in perfect good faith can't meet,³⁴ shows the mismatch between legislative dictate and workable technological design for individual institutions. Other industry-specific copyright rules, such as those relating to music and to cable systems, provide further persuasive evidence about the problems of technological lock-in, industry group capture, and simple incomprehensibility that can result when non-engineers try to design technological systems.

Second, content owners themselves consider Content ID insufficient, except when they are insisting that every OSP should have to use it as a model. Comparing UMG, Sony, and Warner's statements about Content ID with those of other copyright owners demonstrates that the best filtering system is the one you're not using. UMG, for example, says Content ID is 60% effective, while Sony says it missed millions of infringements. The other content companies, like book publishers, are sure that Content ID must be fantastic and therefore should be applied to the entire internet. What they want is not Content ID, but an imaginary system.³⁵

A number of problems, detailed below, make filtering systems far inferior to the DMCA as a matter of legislative design.

2. Automated filtering is a mismatch for copyright in particular.
 - a. There is an insufficient universe: not everything is music and video, and even databases of music and video are incomplete.

Content ID covers audio and video libraries, not the universe of copyrightable works—numerous kinds of texts, software, visual materials, and so on aren't covered, and would face

soulseek-and-paypal-and-why-free-speech-defenders-should-be (discussing how PayPal froze a service provider's account without explanation, imposed requirements it then ignored, and delayed action until a well-known advocacy organization intervened).

³⁴ U.S. Copyright Office, Section 1201 Rulemaking: Sixth Triennial Proceeding to Determine Exemptions to the Prohibition on Circumvention, Recommendation of the Register of Copyrights, <https://cdn.loc.gov/copyright/1201/2015/registers-recommendation.pdf>, at 74 (noting that significant online educational activities that constitute fair use fall outside the TEACH Act); see also William W. Fisher & William McGeeveran, *The Digital Learning Challenge: Obstacles to Educational Uses of Copyrighted Material in the Digital Age: A Foundational White Paper* (10 August 2006), http://cyber.law.harvard.edu/home/uploads/823/BerkmanWhitePaper_08-10-2006.pdf, at 73 (“[T]he TEACH Act failed to create the safe harbor it promised, effectively leaving educational users of digital content without legal recourse to make use of such works.”); Stephana I. Colbert & Oren R. Griffin, *The TEACH Act: Recognizing Its Challenges and Overcoming Its Limitations*, 33 *J. College & Univ. L.* 499 (2007).

³⁵ See, e.g., Warner Music Group, Comments on Section 512 Study: Notice and Request for Public Comment 5 (Mar. 31, 2016) (criticizing Content ID as highly inadequate at identifying works); Sony Music Entertainment, Additional Comments to 512 Study, <https://www.regulations.gov/document?D=COLC-2015-0013-92474>, at 4 (same); UMG Comments, <https://www.regulations.gov/document?D=COLC-2015-0013-90321>, at 25 n.5 (“UMPG estimates that Content ID fails to identify upwards of 40% of the use of UMPG's compositions on YouTube” and is “susceptible to user manipulation of the content that is often designed to circumvent the technology”); Reply Comments of Warner Music Group, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 5 (complaining that Content ID doesn't sufficiently identify videos “incorporating” recordings or live performances); Reply Comments of Sony Music Entm't, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 3, 12-13 (claiming that nearly 1.5 million infringing works since December 2012 weren't identified by Content ID, and that even one copy renders Content ID and “fingerprinting” meaningless).

stunning technical obstacles to inclusion.³⁶ Even the extremely vague and general promises regarding “user-generated content” in the European Union initiative “Licences for Europe—ten pledges to bring more content online” covered only a tiny fraction of the creative industries, whereas online creators regularly work with text, audio, video, and visual arts, often in combination.³⁷

As Congress is well aware from its work on the Music Modernization Act, “[i]n the music businesses, the one sector of copyrighted content headed to this model [of identifying and licensing everything], they are far from perfecting it despite nearly a century of good work towards it.”³⁸ As much music as there is, there are exponentially more written texts and images. And platforms like Etsy that deal in physical goods can’t use digital matching to screen content. Content ID won’t work on a quilt.

In all genres, databases are incomplete and ownership claims are often conflicting.³⁹ Sometimes there are multiple claimants, and internet service providers are in no position to resolve disputes about who actually took or owns the copyright to a given photograph; flawed takedowns or filtering can inflict grave economic harm.⁴⁰ As the Digital Media Licensing Association explained about photographs, “[i]f images are distributed by multiple representatives, or licensed on a non-exclusive basis, it can be nearly impossible to distinguish an infringing use from a

³⁶ See, e.g., DeviantArt, Re: Request for Comments on Department of Commerce Green Paper: Copyright Policy, Creativity, and Innovation in the Digital Economy [Docket No. 130927852-3852-01] https://www.ntia.doc.gov/files/ntia/deviant_art_comments.pdf, at 10 (“In addition to obvious forms of visual art that implicate ‘remix’ practices such as photo manipulation, digital collage, mixed analog/digital collage, stock photography, stock illustration, fractals, multi-media, vectors files, digital wire frames, 3D renderings and many others, traditional art forms such as painting, drawing and sculpture increasingly rely on digital techniques to reference or incorporate other works. All of these forms and categories are found in great numbers on deviantART.”); Google, Comments: Department of Commerce Green Paper, Copyright Policy, Creativity, and Innovation in the Digital Economy, Docket No. 130927852-3852-01 (October 3, 2013), https://www.ntia.doc.gov/files/ntia/google_comments.pdf, at 4 (“As an initial matter, Content ID will never include reference files for every copyrighted work that might be included in every remix uploaded to the site. While Content ID currently has over 15 million reference files in its database, that represents a tiny fraction of all the audio, video, and imagery that falls within the scope of copyright. In other words, no matter how comprehensive Content ID’s database of reference files may one day become, there will always be an important role for fair use when it comes to remixes on YouTube.”).

³⁷ Licences for Europe, European Commission 6 (Nov. 13, 2013),

http://ec.europa.eu/internal_market/copyright/docs/licences-for-europe/131113_ten-pledges_en.pdf.

³⁸ DeviantArt NTIA Comments, *supra*, at 6–7.

³⁹ See, e.g., Stephen Worth, Amazon, U.S. Copyright Office Section 512 Public Roundtable 05-12-2016, transcript at 218 (“It also puts OSPs in a situation where we’re asked to mediate disputes between artists and songwriters and labels and publishers. So, you know, rights move around, and rights change, and sometimes labels lose rights. Sometimes publishers lose rights. Sometimes there’s a dispute about that. And if rightsholders can’t keep track of licenses or properly determine what fair use is, it seems incorrect from my perspective to ask OSPs to do that.”); *id.* at 219 (noting that in music, “the metadata is notoriously poor. Again, rightsholders don’t even know what content they’re licensing to us when we sign a deal with them . . .”).

⁴⁰ See, e.g., National Ass’n of Realtors, Section 512 Study, Additional Comments, <https://www.regulations.gov/document?D=COLC-2015-0013-92461> (explaining the problems caused by conflicting ownership claims for realtors and real estate agencies).

licensed use.”⁴¹ The predictable result of filtering in such genres is that properly licensed uses will be taken down both to the detriment of the copyright owner and the licensed user.⁴²

- b. Automated systems don’t respect fair use and other limits on copyright, harming the creators copyright is supposed to serve.

As Google readily acknowledges, Content ID’s filtering can’t address limitations and exceptions such as fair use, and therefore can’t substitute for a public dispute process ultimately resolvable by a court. A DMCA counternotice allows a fair user to litigate the issue of the lawfulness of her use, but an upload blocked by filtering never gets the chance, and Google and its contractual partners adjudicate claims without any need to be bound by copyright law. Content ID does not require claimants to disclose their rules for what content will be blocked or monetized, creating fundamental problems of fair notice.

Furthermore, Content ID participants retain the right, and often exercise the power, to suppress uses they don’t like—precisely the uses that are most likely to be critical, uncomfortable, or otherwise transformative fair use.⁴³ The OTW’s constituents regularly report that their transformative videos have been blocked, and that copyright claimants reject their fair use statements without explanation, which rejections are then honored by Google. As the history of private copyright licensing schemes reveals, Content ID is not unique in this regard: “the power to suppress retained by each of these models that are marketed as available to everyone confirms that privately negotiated licenses will always retain censorship rights, thus leaving creators of transformative noncommercial works at risk of suppression.”⁴⁴

Unsurprisingly, one result of Content ID’s features is that copyright owners suppress messages they don’t like. Jonathan McIntosh created a remix that criticized the Twilight series for its regressive gender stereotypes, and found his work blocked because he refused, on moral grounds, to allow the copyright owner of Twilight to profit from his work. In other words, the owner used Content ID to suppress criticism. McIntosh’s work was ultimately restored, but his situation was unusual because he managed to get enough publicity and legal assistance to establish that his work was protected by fair use.⁴⁵ In another reported case, a noncommercial

⁴¹ Digital Media Licensing Ass’n, Comments before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, <https://www.regulations.gov/document?D=COLC-2015-0013-89936>, at 5:

⁴² Cf. Alex Feerst, Medium, U.S. Copyright Office Section 512 Public Roundtable 05-12-2016, transcript at 74-75 (describing “the experience of having a large-scale rightsholder license a photograph to somebody launching a Web magazine on Medium. We got a takedown for it and scuttled the launch of that magazine. And it turns out it had been licensed.”).

⁴³ See, e.g., Katie Allen, Google Seeks to Turn a Profit from YouTube Copyright Clashes, *The Guardian* (Nov. 1, 2009), <http://www.guardian.co.uk/technology/2009/nov/01/google-youtube-monetise-content/> (reporting that video content owners block about 20% of detected uses “for reasons such as a user piggybacking on footage to push their own website or because the use does not fit the original’s values,” for example when the original is “a family brand” and the use isn’t family-friendly).

⁴⁴ Rebecca Tushnet, All of This Has Happened Before and All of This Will Happen Again, 29 *Berkeley Tech. L.J.* 1447, 1483 (2014).

⁴⁵ Nat’l Telecomm. & Info. Admin., Request for Comments on Department of Commerce Green Paper, Copyright Policy, Creativity, and Innovation in the Digital Economy, Comments of Organization For Transformative Works 72–73 (Nov. 13, 2013), available at

video analyzing remix culture and copyright law, which used clips from a viral remix video that itself combined a song with video clips from John Hughes films, was taken down as a result of a Content ID claim. The creator's appeal was "rejected," despite Google's promise that an appeal of a Content ID determination would force the claimant to resort to the DMCA process.⁴⁶ Google's contracts with some Content ID partners allow them to override DMCA counternotifications, lifting from copyright owners the burden of filing suit to challenge uses that uploaders would be willing to litigate to defend.⁴⁷

Private systems such as Content ID can directly conflict with copyright's incentive justification. To the extent that a video has copyrightable elements that aren't owned by the claimant, the claimant has no legal right to exploit those elements. Content ID allows the claimant to monetize a work on its own behalf and to deny its creator the right to do so, even if the video isn't an infringing derivative work but is instead a fair use. In such cases, claimants are appropriating noninfringing copyrighted works for their own benefit, directly contrary to the aims of the DMCA.⁴⁸ Copyright owners have used Content ID to control revenues from standard reviews and reporting—classic fair uses even when done for profit—funneling money away from the creators of those reviews and forcing them to choose between the quality of their reviews, which often depend on illustrating a point with evidence, and their ability to earn a living.⁴⁹

There are numerous reports of misidentification and abuse of Content ID. Content ID has suppressed legitimately authorized, time-sensitive uses such as awards shows and political conventions.⁵⁰ Overdetection—for unknown reasons, since the algorithm is secret—occurs in many other circumstances as well.⁵¹ As one artist explains,

It is up to me to prove myself innocent by asking eighteen different publishing companies through an automated system to revoke the automated claims. Each

http://www.ntia.doc.gov/files/ntia/organization_for_transformative_works_comments.pdf.

⁴⁶ Mike Masnick, Video About Fair Use, Remix & Culture Taken Down Over Copyright Claim (Of Course), Techdirt.com (Nov. 8, 2012, 7:27 AM), <http://www.techdirt.com/articles/20121107/18062520968/video-about-fair-use-remix-culture-taken-down-over-copyright-claim-course.shtml>.

⁴⁷ See Google, Videos Removed or Blocked Due to Youtube's Contractual Obligations, Google.com, <https://support.google.com/youtube/answer/3045545/> (last visited Aug. 14, 2014).

⁴⁸ See Mona Ibrahim, Deconstructing Let's Play, Copyright, and the YouTube Content ID Claim System: A Legal Perspective, Gamasutra.com (Dec. 12, 2013, 1:16 PM), http://www.gamasutra.com/blogs/MonaIbrahim/20131212/206912/Deconstructing_Lets_Play_Copyright_and_the_YouTube_Content_ID_Claim_System_A_Legal_Perspective.php

⁴⁹ Owen Good, Game Critic Says YouTube Copyright Policy Threatens His Livelihood [Update], Kotaku.com (Dec. 12, 2013), <http://kotaku.com/game-critic-says-youtube-copyright-policy-threatens-his-1482117783/>.

⁵⁰ See, e.g., Tim Cushing, Copyright Killbots Strike Again: Official DNC Livestream Taken Down By Just About Every Copyright Holder, Techdirt.com (Sept. 5, 2012, 1:32 AM), <http://www.techdirt.com/articles/20120904/22172920275/copyright-killbots-strike-again-official-dnc-livestream-taken-down-just-about-every-copyright-holder.shtml> (automated content protection measures suppressed a stream of an awards show because officially licensed clips from Dr. Who were present; the same thing happened to the Democratic National Convention's official channel, on behalf of multiple copyright claimants).

⁵¹ Owen Good, The Most Ridiculous Victim of YouTube's Crackdown is a BASIC Game, Kotaku.com (Dec. 17, 2013), <http://kotaku.com/the-most-ridiculous-victim-of-youtubes-crackdown-is-a-1484998183/> ("This guy just got flagged for a playthrough video of a game. A game he programmed.").

publisher has a month to reply, with no obligation to even do so. If even one of the eighteen publishers says ‘nope’ then it’s back to square one Any financial loss or restrictions on my channel are entirely on me, and will not be compensated for once the claim is lifted.⁵²

Matching technologies are dubious, especially when content has been altered or is not an exact match, creating problems of undermatching and overmatching.⁵³ Content ID mistakenly matched a 12 second loop of a user’s cat purring to content owned by EMI Publishing and PRS, and also automatically blocked a NASA video of the Curiosity landing on Mars and Michelle Obama’s highly praised speech at the 2012 Democratic National Convention.⁵⁴

Major rightsholders, such as the Harry Fox Agency (which licenses musical works), assert rights over works that are plainly in the public domain.⁵⁵ In order to dispute such invalid claims, individual users have to know enough law to be willing to face down a large entity. And even if they do, abusive claimants may well simply reinstate a claim after a challenge, as Harry Fox did with the 164-year-old Radetzky March by Johann Strauss. Even an invalid claim that is *not* reasserted can prevent a legitimate uploader from monetizing a work for thirty days.⁵⁶

When, as with Content ID, the first claimant can monetize later works for its own benefit, the stage is set for abuses conflicting with copyright’s goal of allowing authors to claim rights in their own work—a creator who loses out to an automated claim loses the benefits copyright is supposed to provide.⁵⁷

Though Google has made efforts to improve the transparency of the claiming process, there are still frequent reports of problems, and, unlike a fair use assertion that can ultimately be litigated, a Content ID rejection is unreviewable. The automated nature of Content ID can

⁵² Ben Jones, Why YouTube’s Automated Copyright Takedown System Hurts Artists, *Torrentfreak.com* (Feb. 23, 2014), <http://torrentfreak.com/why-youtubes-automated-copyright-takedowns-system-hurts-artists-140223/>.

⁵³ Engine Addit’l comments, at 4 (explaining that, with respect to remixes and artwork, these types of content are “almost impossible to detect automatically”) (citing Collin Sullivan, *Creators and Tech Companies Can Be Friends*, *Patreon* (Jan. 19, 2017), <https://patreonhq.com/creators-and-tech-companies-can-be-friends-c18a8508c60d#.ko3bf2lkj>).

⁵⁴ *Id.* at 5-6.

⁵⁵ See Mike Masnick, *Harry Fox Agency Claims Copyright Over Public Domain Work By Johann Strauss*, *Techdirt.com* (Nov. 6, 2012, 10:02 AM), <https://www.techdirt.com/articles/20121102/13164120919/harry-fox-agency-claims-copyright-over-public-domain-work-johann-strauss.shtml>; Chris Morran, *YouTube’s Content ID System Will Take Away Your Money If You Dare Sing “Silent Night,”* *Consumerist.com* (Dec. 26, 2013), <http://consumerist.com/2013/12/26/youtubes-content-id-system-will-take-away-your-money-if-you-dare-sing-silent-night/> (“YouTuber Adam ‘The Alien’ Manley ran up against the idiocy of Content ID twice in the last week, with multiple music publishers claiming that his recent rendition of ‘Silent Night’ violated their copyright, in spite of the fact that the song, an English version of a nearly 200-year-old German Christmas carol . . . has been in the public domain for more than a few years.”).

⁵⁶ See Morran, *supra*.

⁵⁷ See Leron Solomon, *Fair Users or Content Abusers? The Automatic Flagging of Non-Infringing Videos by Content ID on YouTube*, 44 *Hofstra Law Review* 237, 258-59 (2016).

prevent creators from reaching a human with responsibility for a decision.⁵⁸

Fair uses are disproportionately likely to be found in the population of troublesome decisions, since fair uses that involve quoting audio or video will produce Content ID matches. Content ID doesn't analyze transformativeness, the amount of the work taken, or other fair use factors. Google recognizes that a copyright owner could simply block a fair use, or an owner could monetize an upload despite having no right to do so. As Google notes, "[t]he second case can be particularly galling to a remix creator whose fair use video is intended as a criticism or parody of the rightsholder or work in question."⁵⁹ Google contends that it offers procedures to ameliorate these problems, but they still rely on users understanding and exercising their rights in the face of a complex and often-changing process.

Google is a private entity, and can exclude content for any lawful reason, whether its decisions are good or not. Subjecting all sites to the same kinds of practices, by contrast, would be a disaster for free speech—and for individual creators, who simply can't navigate these schemes. Fair users are creators too, and their interests should not be systematically sacrificed in favor of those of other copyright owners.

c. Undermatching can't be fixed.

As noted above, some major users of Content ID complain that, despite the tens of millions of dollars that have been poured into it, it still misses too much. Technological solutions do not work when content can be altered slightly so that machines miss it, as the world tragically discovered with the video of the New Zealand mosque shooting.⁶⁰ Other automated systems, such as Scribd's BookID, have similar problems of over and underblocking, because those problems are the consequence of using technology to filter and not of specific programmers' choices.⁶¹ Algorithms to spot minor edits are extremely onerous in terms of programmer time

⁵⁸ Owen Good, YouTube's Copyright Crackdown: Everything You Need To Know, KOTAKU.COM (Dec. 18, 2013), <http://kotaku.com/youtubes-copyright-crackdown-simple-answers-to-compli-1485999937/> ("When people are told they are violating a law or a rule, they expect to be able to confront or reason with the enforcer of that rule or the person they've wronged, however unwittingly. With a YouTube scanning program making these calls on behalf of others, who sometimes aren't aware of the claims made in their name, it can be very hard to get someone on the line to hash things out.").

⁵⁹ Google PTO/NTIA comments, at 5.

⁶⁰ Elizabeth Dwoskin & Craig Timberg, Inside YouTube's struggles to shut down video of the New Zealand shooting — and the humans who outsmarted its systems, Mar. 18, 2019, <https://www.washingtonpost.com/technology/2019/03/18/inside-youtubes-struggles-shut-down-video-new-zealand-shooting-humans-who-outsmarted-its-systems>.

⁶¹ See Scribd, <https://www.scribd.com/copyright/bookid> (last visited Jan. 26, 2017) (explaining that scanning text with optical character recognition produces results that "make it very difficult, if not impossible, to detect matches," and that false positives are common because many books "contain long excerpts of classic literature, religious texts, legal documents, and government publications that are typically in the public domain. This can occasionally result in the removal of uncopyrighted, authorized, or public domain material from Scribd.... Unfortunately, the volume of reference samples and uploads to Scribd prevent any sort of manual oversight or notification prior to effecting removals."). Given the ability to upload documents using HTML and CSS—basic building blocks of online content—a filter-defeating change can be something invisible to the naked eye, such as putting a nonbreakable space () in place of a regular space, or adding random sentences and hiding them with CSS. More generally, a simple filter is trivially easy to evade: it is easy to recode media in a new file format and get a different hash.

and expertise, as well as in computational resources.⁶² And even the most sophisticated, expensive algorithms are in a losing battle with encryption.⁶³ Because underblocking can be produced by deliberate evasion, even the most aggressive overblocking won't fix it.⁶⁴

Attempts to impose more obligations are likely to fail to decrease pure, substitutionary copying, because users dedicated to piracy excel at finding ways to route around obstacles. By contrast, ordinary good-faith users are more likely to get accidentally caught in a trap. Given this dynamic, where automated filtering and blocking deters the wrong people, each failed measure is likely to lead to demands for ever more restrictive actions, suppressing more and more legitimate speech in the process—if only by driving websites with fewer resources out of business.

3. Expensive technological mandates harm competition and innovation

Most sites can't afford the investment required to create a Content ID-like system. As the visual art site DeviantART explained:

YouTube's content identification system . . . is very complex and very expensive. It requires registration of works, digital fingerprinting and a constant review and frequent interdiction of incoming user generated content. Some estimates of the cost of building this system exceed \$1.5 billion just for the music component. It hopefully goes without saying that very few enterprises can afford this approach. The technology required to (i) store metadata, (ii) identify works at nanosecond speeds, (iii) seamlessly execute on permission sets after identification, (iv) place advertising inventory in front of the work and finally (v) generate a revenue share payment to the copyright owners reflects a level of engineering excellence also beyond the reach of most enterprises.⁶⁵

⁶² See WIKIPEDIA, https://en.wikipedia.org/wiki/Plagiarism_detection (last visited Jan. 26, 2017). The OTW's Systems team notes that, because it is made up of part-time volunteers, we couldn't expect even minimal progress on such an algorithm for years.

⁶³ See Vance Ikezoye, President and CEO, Audible Magic Corp., Statement before the House Science and Tech. Comm. 8 (June 5, 2007) (available at https://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/060507_ikezoye.pdf) (“The reality is that encryption technology can prevent the detection of content transfers at the file level such as that performed by our product.”). Audible claims resistance to “some” but not all encryption methods. See Audible Magic Corp., *Response to the RFI from the Joint Comm. of the Higher Educ. and Entm't Comtys. Tech. Task Force*, (2008), <https://net.educause.edu/elements/attachments/rfi/vendors/audible.pdf> (vendor statement to educational institutions touting its product); see also *UMG Recordings, Inc. v. Veoh Networks Inc.*, 665 F. Supp. 2d 1099, 1104 (C.D. Cal. 2009) (noting that “the Audible Magic filter had failed to identify as infringing hundreds of . . . allegedly infringing videos”). Mandating such filtering isn't consistent with EU law, even though that law more readily imposes liability on OSPs than US law. Case C-70/10 *Scarlet Extended SA v Société belge des auteurs, compositeurs et éditeurs SCRL (SABAM)* [2011] ECR 2011:771 (Para. 52); Case C-360/10 *SABAM v. Netlog* [2012] ECHR 2012:85.

⁶⁴ See, e.g., Reply Comments of Facebook, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 6 (“[E]ven for sophisticated services like Facebook, it is technologically difficult, if not impossible, to ensure that the same or similar content, once reported, will stay down indefinitely. Slight variations in the content could result in its reappearance, and users intent on gaming the system likely would find workarounds.”).

⁶⁵ DeviantArt NTIA Comments, *supra*, at 28–29 (footnote omitted).

Google itself notes that Content ID’s development was incredibly expensive (costing over sixty million dollars) and resource-intensive, requiring more than 50,000 engineering hours. Startup competitors couldn’t replicate it.⁶⁶ “Even well-resourced OSPs feared being forced to deploy filtering technologies; many saw them as unattainably expensive.”⁶⁷

Nor can filters simply be put into place with the push of a button, or used to replace a notice and takedown system: “Content filtering systems do not obviate the need for automated notice handling. Even if they are off-the-shelf, they must be integrated into OSPs systems. And rightsholders vary in their requests, pushing OSPs to run parallel systems to manage different enforcement demands.”⁶⁸ Suggestions that new entrants be forced to join in filtering schemes would turn services such as Audible Magic into monopolists whose prices OSPs would be forced to pay and whose consent would be necessary for innovators to develop new sites, services, and business models.

Like adding expensive medications to counteract the side effects of other expensive medications, proposals to fine-tune filtering only make matters worse from a competitive perspective:

Building a system like YouTube’s Content ID program—an automated digital “fingerprinting” system that compares the content of files uploaded to the site against a list of copyrighted material to identify infringements—costs more than the entire value of most startups. And even with such a sophisticated system, YouTube recently announced that it was creating a dedicated team to review takedown claims to address the growing number of complaints from users that their legitimate content was being misidentified as copyright infringing. Needing to hire a dedicated team to monitor takedown notices for accuracy would significantly increase the cost of starting and operating a platform OSP, which would in turn limit competition in the sector and ultimately harm the economic and creative potential of the Internet. In fact, requiring a system as robust as Content ID, as some rights holder organizations have suggested, would do nothing more than entrench

⁶⁶ Hearing on S. 512 of Title 17 Before the Subcomm. on Courts, Intellectual Prop., and the Internet of the H. Comm. on the Judiciary, 113th Cong. 6 (2014) (testimony of Katherine Oyama, Senior Copyright Policy Counsel, Google Inc.), available at http://judiciary.house.gov/_cache/files/be93d452-945a-4fff-83ec-b3f51de782b3/031314-testimony---oyama.pdf (noting that “YouTube could never have launched as a small start-up in 2005 if it had been required by law to first build a system like Content ID.”).

⁶⁷ Urban et al., *Everyday Practice*, supra, at 58; see also Urban et al., *Accounts*, supra, at 399 (“In some striking cases, it appears that the vulnerability of smaller OSPs to the costs of implementing large-scale notice and takedown systems and adopting expensive DMCA Plus practices can police market entry, success, and competition. Those without sufficient resources to build or license automated systems described being in precarious positions, at risk of being priced out of the market by better-resourced competition if floods of notices or DMCA Plus requirements were to arrive.”); id. at 400 (noting estimated cost of filtering: \$60 million to develop Google’s Content ID, and \$10,000–12,000 per month for Audible Magic for one medium-sized service and \$25,000 per month for another service, plus additional, ongoing implementation, negotiation, and review costs).

⁶⁸ Urban et al., *Everyday Practice*, supra, at 64.

the dominant players' position in the market and drive out any competitors, as no new entrants to the market could afford such an obligation.⁶⁹

The Wikimedia Project eloquently explained the trouble with any automation mandate:

Even if a perfect (or very good) automated process could be created for sending notices, it would still not be feasible for organizations like us—small, non-profit—to implement and comply with automated processes. We do not have the engineering resources to create or purchase an automated system for identifying problematic material (or even for evaluating and processing notices) in a manner that still protects free expression. It would be prohibitively expensive to hire professional staff to review the many more notices that we could receive in an environment that allowed for widespread, unchecked use of automated notice-sending systems. In addition, it would be unnecessary to make it easier for rightsholders to send more automated notices to sites where there is no evidence of widespread copyright infringement....

Complying with a new requirement to check every upload against every piece of material we have ever taken down would necessitate an enormous investment of resources—time and money—on our part—resources that we frankly do not have.⁷⁰

On the other side, creators are also put in a take-it-or-leave-it position by licensing systems, usually with the result that they can't make specific decisions about uses—for example, consider the recording artists who are upset with the blanket licenses that allow political candidates to play their songs at various public events. The experience of collective licensing also suggests that the supposed promise of control and compensation from massive licensing is often vastly overstated; most creators don't benefit, and copyright's purposes are unserved, if "unauthorized uses" decrease but the resulting revenue goes to administration and to a subset of already-successful creators.⁷¹ Lack of competition in licensing agencies harms individual creators just as it harms small OSPs.

We do not know what markets will look like in ten years. YouTube itself is relatively young. A licensing model risks entrenching YouTube's near-monopoly on the market.⁷² As we've seen with digital-radio licensing, new entrants can rarely cut the same deals as earlier ones.

More broadly, licensing protects monopolies by creating barriers to entry. For example, when Google was sued for scanning hundreds of thousands of library books, it initially supported a

⁶⁹ Engine, et al. Comments, *supra*, at 7 (footnote omitted). See also Reply Comments of Electronic Frontier Foundation, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 13 (detailing numerous problems with Content ID).

⁷⁰ Wikimedia Comments, *supra* note 6, at 9-10.

⁷¹ See Jonathan Band & Brandon Butler, Some Cautionary Tales About Collective Licensing, 21 Mich. St. Int'l L. Rev. 687 (2013).

⁷² Urban et al., Everyday Practice, *supra*, at 64 ("[No smaller OSP viewed homegrown development of such systems as a viable option. Several described filtering as a major competitive advantage for larger services"]; cf. Jeff Macke, E-Book Ruling Cements Amazon's Virtual Monopoly, Yahoo Finance—Breakout (July 11, 2013), <http://finance.yahoo.com/blogs/breakout/e-bookruling-cements-amazon-virtual-monopoly-150844210.html> (noting Amazon's increasing monopoly over e-book content).

settlement that required it to pay licensing fees, but that was rational for many reasons, including the fact that it created significant barriers to entry for potential competitors.⁷³ By contrast, the finding that scanning in order to create snippets and analyze the books for content was fair use allows other entities to do the same thing, even though most probably won't have Google's resources.⁷⁴ Section 512 serves a similar structural function, allowing new services to launch even without Google's agreements and resources in place.

4. The level of infringement on most §512(d) sites does not justify a burdensome regulatory mandate.

Requiring a DMCA Classic company to spend tens of millions of dollars to prevent a handful of infringements per year is incredibly inefficient. Any such rule would make launching or operating startups that host user-provided content cost-prohibitive.

Content ID is a successful monetization model for some large copyright owners of popular online video and audio content. But it is not an appropriate model for every service provider that hosts, transmits, or links to works in any medium, especially given the absence of a widespread problem of high-volume infringement on user-generated content sites.

The Takedown Project's summary of its findings stands as a simple statement about why filtering proposals aimed at conduct affecting large providers like Google are a terrible idea for the internet ecosystem as a whole:

First, the relatively high number of problematic notices we observed in our studies counsels against expanding automated practices without much better controls against mistake and abuse. Second, DMCA Classic OSPs appear to make up a substantial portion of the online ecosystem, and they are very sensitive to the costs automated measures would impose on them. Further, many DMCA Classic OSPs rarely or never encounter large-scale infringement issues, weighting the cost-benefit analysis against automated measures. Third, the numbers of problematic notices we observed in our quantitative studies show that targets' expression interests remain a crucial issue for notice and takedown policy.⁷⁵

For the majority of OSPs, such as the OTW, filtering mandates are not just matters of rewriting existing algorithms; they would require completely new technologies, in an attempt to detect a handful of infringing uses out of millions of pieces of legitimate content. The game is not worth the candle.

- F. Conduits that do not host content face special challenges.

⁷³ Ariel Katz, Fair Use for the Google Goose; Fair Use for the Book Gander, Ariel Katz (Nov. 26, 2013), <http://arielkatz.org/archives/2992/>.

⁷⁴ Authors Guild v. Google, Inc., 804 F.3d 202 (2d Cir. 2015).

⁷⁵ Reply Comments of Takedown Project, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7., at 8.

As internet access has become so important to ordinary life, the Supreme Court has recognized that broadly cutting a person off from the internet—or even just from social media—is an unjustified penalty even when the person has committed serious crimes.⁷⁶ However, there are serious issues involving copyright claimants sending millions of notices to internet access providers, demanding they forward legal threats to their subscribers, and otherwise demanding that they cut off subscribers based on allegations of infringement that may not be connected to that subscriber. (If an infringement claim is based on use of a particular IP address at a specific time, that address may be in use by a completely different person the next day; or multiple people may use the same wi-fi connection, meaning that the service provider cannot distinguish them.) For example, NTCA (the Rural Broadband Association) represents 850 rural broadband providers, covering 33% of the US landmass, and these are the sole provider in many of their communities. Fifty million Americans have only one broadband provider in their area. Yet providers are being asked to cut off access to entire households based on allegations with limited information—they can’t inspect their users’ content because they don’t host the content.

Colleges and universities, which also function as §512(a) OSPs, face similar problems. As Educause has explained, they often see notices targeting their students with obvious mistakes, or making invalid claims:

[E]nforcement agent notices frequently contain inaccurate information, such as citing instances of alleged infringement at IP addresses that were not in use at the time a notice specifies. Likewise, even though rights holders and their agents should consider fair use before asserting infringement, institutions regularly see a high degree of notices requesting takedown of content that any good-faith determination would identify as fair use.⁷⁷

The special challenges faced by §512(a) conduits, and the serious consequences of termination of internet access, should be kept in mind in any review of §512.

II. Section 1201

We now have over twenty years of experience with §1201’s prohibition on circumvention of access controls and on disseminating tools that circumvent rights and access controls. Unfortunately, it has been a comprehensive failure, doing no better to prevent infringement than traditional secondary liability while simultaneously enabling anticompetitive behavior unrelated to deterring copyright infringement. It has harmed filmmakers and security researchers alike, and it compromises our ability to identify the next dangerous piece of software.⁷⁸

Section 1201’s problems can be divided into two categories: problems with its actual target (barring circumvention to access copyrighted works that have value because of their expressive

⁷⁶ See *Packingham v. North Carolina*, 582 U.S. ____ (2017).

⁷⁷ Reply Comments of Educause, Association of American Universities & Association of Public and Land-Grant Universities, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 2-3.

⁷⁸ See, e.g., Mark Mazzetti, Nicole Perlroth & Ronen Bergman, It Seemed Like a Popular Chat App. It’s Secretly a Spy Tool, *N.Y. Times*, Dec. 22, 2019, <https://www.nytimes.com/2019/12/22/us/politics/totok-app-uae.html>.

elements) and problems with its unintended scope (used to control what people can do with devices that happen to have copyright-protected software in them).

A. Section 1201 doesn't deter wrongdoers, but harms entities trying to do right.

In the past two decades, §1201 hasn't prevented the widespread availability of circumvention technology, much less of infringement. Copyright infringers don't pause to ask whether they're violating a second law, §1201 (of which they are almost certainly unaware). Unfortunately, §1201 therefore is more likely to harm people trying to do the right thing than to deter people trying to do the wrong thing, because the prohibition on circumventing access controls extends to scenarios where there is absolutely no infringement involved. Meanwhile, the prohibition on disseminating circumvention technologies means that people who have every right to make a use should have to become computer programmers to invent their own circumvention technologies before they circumvent a rights control.

The only reason that §1201 hasn't caused more damage to creativity is that it doesn't work. The Librarian of Congress has repeatedly determined that circumvention technology has remained readily accessible to anyone with an internet connection, and has never received evidence that §1201 deters infringement.⁷⁹ The reason most people don't use circumvention technology to acquire unauthorized copies is that they don't need to: for pure consumption purposes, illegal downloads are widely available. Fortunately, legitimate services are increasingly competing to provide simple and timely access for consumptive uses.

It is particularly notable that, in six rounds of rulemaking over twenty years, supporters of §1201 have developed no evidence that potential bad actors know about anticircumvention law.⁸⁰ Ironically, anticircumvention thus weighs most heavily on risk-averse and legally aware documentary filmmakers, educators, remixers and others who are not making infringing uses, but still need to do more than just consume copyrighted works—for example, they may want to monitor the output of their own computerized insulin monitors, which technically requires circumvention because the monitors contain computer programs. As researcher Lucas Hilderbrand observed, “when people learn about the extent of the DMCA restrictions, they respond with shock and outrage, which tends to turn either to pessimism or to willful disregard for the law.”⁸¹

⁷⁹ Indeed, there must be an implied right to make a tool to engage in a privileged circumvention, or else the exemptions granted, either by statute or by the rulemaking process, are meaningless. *See* Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Rules Need to Be Revised*, 14 *Berkeley Tech. L.J.* 519, 554 (1999). The main reason §1201 is not impeding more lawful uses is because circumvention tools are easy to find.

⁸⁰ *See also* Krzysztof Bebenek, *Strong Wills, Weak Locks: Consumer Expectations and the DMCA Anticircumvention Regime*, 26 *Berkeley Tech. L.J.* 1457 (2011) (“[B]ecause the DMCA’s anticircumvention regime relies on a combination of complex law and porous technology that fails to reflect consumer expectations, there is good reason to believe that it is also fairly ineffectual.”).

⁸¹ Lucas Hilderbrand, *Inherent Vice: Bootleg Histories of Videotape and Copyright* 79 (2009); *see also* Katherine Freund “Fair use is legal use”: Copyright Negotiations and Strategies in the Fan-Vidding Community, 17 *New Media & Society* 1, 5 (2014) (“The complexity of copyright law makes it very difficult for non-experts to understand, particularly, the anti See R. Anthony Reese, *Will Merging Access Controls and Rights Controls Undermine the Structure of Anticircumvention Law?*, 18 *Berkeley Tech. L.J.* 619, 650-51 (2003) (explaining how

One specific problem is that Congress established a distinction between rights controls and access controls that has become a dead letter. That is, Congress believed that an “access control” would be something like a code that allowed a consumer to rent a movie for a short period of time; the access control would prevent access past that time. A “rights control,” by contrast, would limit the consumer’s ability to copy a DVD she owned. Because rights controls deal with copyright rights—making copies, performing a work in public, distributing a work, and so on—and because such rights are often limited by rules such as fair use and teachers’ rights to use materials in face to face teaching, Congress determined that circumvention of rights controls should not itself be a violation of §1201. But copyright owners quickly and successfully asserted that the technologies they used were access controls, not rights controls, even when they were imposed for the purpose of controlling rights. With the definition of access control bloated to cover all technological protection measures, the balance crafted by Congress was destroyed.

B. Section 1201 has been abused to control devices instead of copyrighted works.

An additional problem is that §1201 covers “access controls” even when access to a work won’t cause any copying or copyright infringement to take place. Because computer software is embedded in many products, sellers of machines seized the opportunity to extend their control over those machines in new ways completely unrelated to the goals of copyright, and harmful to ordinary uses and users. For example, John Deere has embedded software in its tractors to prevent farmers or third party service companies from diagnosing and repairing problems with the tractors.⁸²

Section 1201 has likewise inhibited important research on voting machines, even as understanding those machines becomes even more vital. We don’t know where the next security flaw will come from, as we’ve seen reports of serious software issues with airplanes, cars, and even internet-connected household devices such as refrigerators. There has been a geometric increase in connected devices, but §1201 is a tremendous obstacle to security research to ensure that cars, airplanes, fridges, and TV sets are in fact secure. Using “access controls” to prevent research and repairs that have no nexus to copyright infringement elevates software owners’ claims to control over public safety and health.

Some courts have implied an infringement nexus requirement in order to protect ordinary consumers and third parties from §1201 liability when they do things like replace a lost garage

overuse of access control has left rights control provisions a dead letter); Letter from Martine Courant Rife, Researcher, Mich. State University, to U.S. Copyright Office, Library of Congress (July 10, 2009), available at http://www.copyright.gov/1201/2008/answers/7_10_responses/final-rife_response-to-questions-july-10-2009.pdf (response to Copyright Office post-hearing questions) (arguing that the Copyright Office should treat CSS, the technology that protects DVDs, as a rights control technology such that no exemption is required to allow individual circumvention of CSS); Neil J. Conley, Circumventing Rights Controls: The Token Crack in the Fair Use Window Left Open by Congress in 1201 May Be Open Wider than Expected--Technically Speaking, 8 Chi.-Kent J. Intell. Prop. 297, 316 (2009) (arguing that classifying technologies as rights controls rather than access controls has undermined congressional intent to preserve fair use).-circumvention requirements of the DMCA.”).

⁸² See Olivia Solon, A right to repair: why Nebraska farmers are taking on John Deere and Apple, Mar. 6, 2017, <https://www.theguardian.com/environment/2017/mar/06/nebraska-farmers-right-to-repair-john-deere-apple>.

door opener or buy cheaper toner cartridges,⁸³ but other courts have explicitly rejected such a requirement.⁸⁴

C. The exemption process has failed.

I have participated in multiple rounds of the §1201 exemption process, which allows the Copyright Office to make short-term exemptions to the prohibition on circumventing access controls. Although I was fortunate to help secure an exemption for noncommercial remix video, the process is largely a waste of time and energy, especially since it has to be re-done every three years, while the need to make educational, critical, and informational fair uses remains exactly the same. As we showed the Copyright Office, there are numerous fair uses that involve using clips from videos protected by technology that §1201 considers an “access control.” Even though the uses are short, transformative, and fair, §1201 bars the process by which they are made and thus (without an exemption) made lawbreakers out of people who were doing exactly what copyright is supposed to incentivize: creating new works of knowledge.⁸⁵

The Copyright Office is mandated to conduct exemption hearings every three years that can add to the existing statutory exemptions for short periods. What we have learned from the past 22 years is that a more permanent fix is needed, and that a fix will not be harmful to the legitimate needs of content industries. Just as the MPAA predicted that the VCR would destroy the film industry,⁸⁶ the MPAA, along with like-minded organizations, repeatedly claimed that any exemption at all to §1201 would lead to the collapse of TPMs.⁸⁷ Indeed, they specifically

⁸³ See, e.g., *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*, 381 F.3d 1178 (Fed. Cir. 2004).

⁸⁴ See *MDY Industries, LLC v. Blizzard Entertainment, Inc.*, 629 F.3d 928 (9th Cir. 2011).

⁸⁵ Fair users like the anti-abortion group Center for Bio-Ethical Reform or a critic of an anti-Muslim speaker create speech about specific matters, using circumvention to do so. *Northland Family Planning Clinic, Inc. v. Ctr. for Bio-Ethical Reform*, 868 F. Supp. 2d 962, 972, 982-93 (C.D. Cal. 2012) (re-edited video critiquing original video was fair use); *Caner v. Autry*, 2014 WL 2002835 (W.D. Va. May 14, 2014); EFF/OTW 2014 Comment on §1201 Rulemaking, at 9. Likewise, a video made by Native American activists highlighted by the Copyright Office as an example of a use that should be protected was made within a political community, not by people who routinely deal with technical copyright issues. Section 1201 Rulemaking: Sixth Triennial Proceeding, Recommendation of the Register of Copyrights 86 (Oct. 2015).

⁸⁶ “[T]he VCR is to the American film producer and the American public as the Boston strangler is to the woman home alone.” Jack Valenti, the MPAA lobbyist who made this claim, conceded a few minutes later that he owned and used a video tape recorder. 1982 Home Recording Hearing, Home Recording of Copyrighted Works: Hearing on H.R. 4783, H.R. 4794, H.R. 4808, H.R. 5250, H.R. 5488, and H.R. 5705 Before the Subcomm. on Courts of the H. Comm. on the Judiciary, 97th Cong. (1982), at 8, 10 (testimony of Jack Valenti, Motion Picture Association of America); see also Michael A. Carrier, *Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law* 107 (1st Ed. 2009) (recounting the content industries’ grim and inaccurate history of predicting that new technologies—including player pianos and records—would destroy the production of creative works).

⁸⁷ Transcript of Testimony at 76, Section 1201 Rulemaking, Docket No. RM 2005-11A (U.S. Copyright Office Apr. 3, 2006), available at <http://www.copyright.gov/1201/2006/hearings/transcript-april03.pdf> (testimony of Fritz Attaway, Motion Picture Ass’n of Am.) (opposing any exemptions as threats to the effectiveness of entire 1201 regime); Comments of Motion Picture Ass’n of Am. (MPAA) at 11, Section 1201 Rulemaking, Docket No. RM 2008-8 (U.S. Copyright Office Feb. 2, 2009), available at <http://www.copyright.gov/1201/2008/responses/mpaa-46.pdf> (same); Comments of DVD Copy Control Ass’n, Inc. at 2, Section 1201 Rulemaking, Docket No. RM 2002-3 (U.S. Copyright Office Feb. 19, 2003), available at <http://www.copyright.gov/1201/2003/reply/028.pdf> (“even . . . ‘limited exemptions’ will essentially render CSS ineffective as a means of protecting copyrighted content”); see also

predicted that the 2006 exemption for circumvention for use in college film studies would, like the VCR before it, destroy the film industry.⁸⁸ They've been wrong each time, and in the 2015 proceedings, they abandoned opposition to the renewal of many existing exemptions, conceding their prior errors.

There are at least four reasons that the exemption process is broken. First, the Office can't grant exemptions to the trafficking provisions, meaning that most people entitled to exemptions have to rely on programs that in theory shouldn't have been created, unless they're one of the small number of people capable of figuring out how write the relevant computer code.

Second, the exemptions increasingly deal with non-copyright issues like the functioning of medical equipment, and the Office has appointed itself as a roving examiner of how medical equipment should work without having the expertise to evaluate that question.

Third, the exemptions are extremely burdensome. The process usually takes about a year, the Office requires substantial resubmission and reargument even for previously granted exemptions, and the content of the exemptions is so detailed that only a lawyer could wade through them—and even then, the lawyer might well be unable to provide a definitive opinion about whether a particular use qualifies.

One result of this burden is that organizations representing the blind and print disabled have had to expend substantial resources, one year out of every three, repetitively arguing for the renewal of exemptions that allow circumvention to allow institutions to provide accessible copies of works to blind and print disabled patrons in formats they can perceive. Those are resources that can't be devoted to removing other barriers to accessibility. Over time, fewer individuals are even trying to participate in the process, and “[e]ven interested parties, such as copyright holders, advocacy groups, educational and research institutions, must often resort to attorneys and experts in the field to build a case for them. As a result, the notice and comment process, which was intended to have broad public participation, is now dominated by legal experts.”⁸⁹

Fourth, the exemptions are entirely reactive and unduly narrow. Because the Copyright Office has interpreted its job as narrowing any proposed exemptions, it routinely adds complexity and limitation to exemptions.

Comments of the DVD Copy Control Ass'n, Inc. at 14, Section 1201 Rulemaking, Docket No. RM 2005-11 (U.S. Copyright Office Feb. 2006), available at http://www.copyright.gov/1201/2006/reply/01taylor_DVDCCA.pdf (nearly identical argument); Comments of Time Warner, Inc. at 10-11, Section 1201 Rulemaking, Docket No. RM 2005-11 (U.S. Copyright Office Feb. 2006), available at http://www.copyright.gov/1201/2006/reply/18aistars_TWI.pdf (“Granting [an exemption] with respect to any particular [DRM] technology would be tantamount to outlawing the use of that technology.”).

⁸⁸ Joint Reply Comments of Ass'n of Am. Publishers et al. at 30, Section 1201 Rulemaking, Docket No. RM 2005-11 (U.S. Copyright Office Feb. 2, 2006), available at http://www.copyright.gov/1201/2006/reply/11metalitz_AAP.pdf (“[T]he very medium that educators have grown to appreciate and desire to use in their classrooms would be threatened by the recognition of the requested exemption.”).

⁸⁹ Maryna Koberidze, *The DMCA Rulemaking Mechanism: Fail or Safe?*, 11 Wash. J.L. Tech. & Arts 211, 248-49 (2015) (footnotes omitted).

The result is increased complexity over time, making the exemptions progressively less coherent and usable. In 2006, the exemption for educational uses was 44 words long; ten years later, it was 1000 words long. The average teacher, unsurprisingly, has a much easier time understanding the former than the latter.

Here is another example from 2015:

Computer programs, where the circumvention is undertaken on a lawfully acquired device or machine on which the computer program operates solely for the purpose of good-faith security research and does not violate any applicable law, including without limitation the Computer Fraud and Abuse Act of 1986, as amended and codified in title 18, United States Code; and provided, however, that, except as to voting machines, such circumvention is initiated no earlier than 12 months after the effective date of this regulation, and the device or machine is one of the following:

(A) A device or machine primarily designed for use by individual consumers (including voting machines);
(B) A motorized land vehicle; or
(C) A medical device designed for whole or partial implantation in patients or a corresponding personal monitoring system, that is not and will not be used by patients or for patient care.

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

Although there is no reason that nonmedical or nonimplanted medical devices should be excluded—consumers have good reasons to understand and control the flow of data their “smart” home appliances are sending out, for example—they were not covered, even though there was no serious risk of copyright infringement of the software in a smart refrigerator any more than there is a serious risk of copyright infringement of the software in an insulin pump. And uncertainties remain about what security researchers could do: is disseminating information to the public on voting machine vulnerabilities done “primarily to promote the security or safety” of the devices? Given that researchers have regularly been threatened with §1201 liability for reporting their results to the public, the stinginess with which the Office has drafted its exemptions can do real harm.

Similarly, the Office has repeatedly refused to recognize that fair use can justify the use of clips of audiovisual works in fictional films, not just in documentaries, creating situations in which acts performed by film editors and directors in May—when they were working on a documentary—are illegal in June—when they switch to another film. And the Office has taken a restrictive approach to educational fair use, limiting exemptions so that college teachers and students have more freedom than K-12 teachers and students. This happens even though the

witnesses always testify about what constitutes good pedagogy generally, which is not limited to colleges or higher grades, and even though copyright law itself provides special protections for educational uses generally.

The rise of non-copyright concerns to prominence during the rulemaking proceedings is an unfortunate side effect of the overbreadth of §1201. The Copyright Office is now trying to figure out car safety, medical product safety, and other issues, and it lacks the expertise to do so. This provides another reason to reform §1201 so that it is more clearly directed at deterring infringement, not at protecting “digital locks” for their own sake. It is the Copyright Office’s responsibility to ensure that §1201 does not hinder free expression, but not the Copyright Office’s responsibility to prevent people from reprogramming their insulin monitors. One of the reasons it is burdensome for the Office to run the exemption proceeding is that there are now so many different manufacturing interests at stake, even though they aren’t at all interested in protecting their copyrights against piracy; they want to prevent third parties from diagnosing and repairing their products.

D. Reforms are possible to link §1201 to true copyright concerns.

The most urgent reform is to require that circumvention is only unlawful where there is a nexus to infringement, as several courts have suggested. Other courts have refused to read a nexus requirement into §1201 as it stands, but that could be fixed by explicit adoption of a nexus standard. Section 1201(a)(1) should allow circumvention for the purpose of making a non-infringing use of a protected work. Section 1201(a)(2) and Section (b)(1) should be amended to permit the making and distribution of tools capable of enabling substantial non-infringing use of a work, in order to give those making lawful uses the practical ability to circumvent. Traditional contributory and vicarious liability would remain available where the distributor induced or otherwise wrongfully facilitated infringement.

A milder reform would be to exclude from §1201 software used to operate any mechanical device, to refocus §1201 on the books, movies, games, and music that Congress anticipated would be covered. In addition, Congress could reinstate the access control/rights control distinction through language clarifying that an “access control” that controls the timing or number of allowed performances is meaningfully different from a “rights control” that operates even when a consumer has purchased a DVD or music album and can play it without limits.

Even milder reforms would include expanding the exemption process so that the Copyright Office can grant exemptions for all the parts of §1201, which would for example allow diabetics to share information about how they can access their own insulin monitors with other diabetics. That which is lawful to do ought to be lawful to get assistance in doing. Under the present regime, which formally bans people who manage to circumvent in order to deal with their own devices from sharing that method with other people in the same situation as they are, large entities with in-house programmers are rewarded over small entities. This is particularly egregious discrimination when it comes to First Amendment-protected activities such as journalism and criticism. And it’s particularly cruel when it prevents circumvention with no credible nexus to copying software for further dissemination, as with the medical devices,

tractors, and other machines that have been affected by §1201: a programmer can tweak his own insulin monitor, but in theory isn't allowed to explain to other diabetics what he's done.

Similarly, exemptions should be presumptively renewed unless there is sufficient evidence that circumstances have changed such that the exemption is facilitating copyright infringement. Furthermore, entities that use technological protection measures should be required to facilitate access to exempted classes of works.

E. Reforms would make the law more consistent and credible.

Reform of §1201 should further the overriding objective of encouraging understanding of and respect for the law. As Lucas Hildebrand observed above, the DMCA's provisions create contempt for the law. One reason so many laypeople are dismissive of copyright law is because it is counterintuitive and arcane, resulting in seeming unfairness and futility.⁹⁰ The United Kingdom's Intellectual Property Office surveyed numerous copyright stakeholders, and heard the same point that simple rules promote understanding and compliance:

[Some stakeholders] saw the complexity of copyright as the main challenge to lawful use of works. In their view, the current situation online was too confusing to understand and as a result many people gave up trying....

The copyright system suffers from a marked lack of public legitimacy. . . . The system is often unable to accommodate certain uses of copyright works that a large proportion of the population regards as legitimate fair and reasonable. . . .⁹¹

While they encourage disrespect from some people, incomprehensible rules also deter risk-averse creators from making fair uses. The solution, as the UK IPO report put it, is to “hid[e] the wiring”—to simplify copyright law so that it comes into better alignment with ordinary logic.⁹² Reforming §1201 is a significant part of that solution.

⁹⁰ See Jessica Litman, *Digital Copyright* 195 (2001) (“The less workable a law is, the more problematic it is to enforce. The harder it is to explain the law to the people it is supposed to restrict, the harder it will be to explain to the prosecutors, judges, and juries charged with applying it. . . . Finally, the less the law’s choices strike the people it affects as legitimate, the less they will feel as if breaking that law is doing anything wrong.”); see also Joyce E. Cutler, *On Copyright’s 300th Anniversary, Scholars Question Effectiveness of Current Formulation*, 15 *Electronic Com. & L. Rep.* 641 (2010) (“Copyright law is ‘out of balance’ and action must be taken to restore the public’s respect for copyright, [then-]Register of Copyrights Marybeth Peters said. . . . ‘[W]e have lost the respect of the public in many ways,’ Peters said. . . . Copyright law should be understandable so that people will obey and respect it, Peters said. Further, the way copyright is viewed has changed, and there are lots of new players, including consumers, who Peters said ‘are really key in the copyright debate.’”).

⁹¹ U.K. Intellectual Prop. Office, *© the Way Ahead: A Strategy for Copyright in the Digital Age* 24, 27 (2009), available at <http://www.ipo.gov.uk/c-strategy-digitalage.pdf> (citations omitted).

⁹² U.K. Intellectual Prop. Office, *supra*, at 33 (“Calls have been made for solutions which lessen or remove a non-commercial consumer’s need to understand copyright law. The analysis above would suggest that ‘hiding the wiring’ by simplifying the situation for users could help tackle some of the problems of the copyright system.” (citation omitted)).

F. Reforms are consistent with our international commitments.

All these fixes are completely consistent with our international obligations. The treaties we have signed provide for permanent exceptions, and require only that copyright owners be protected against circumvention that violates their rights, not that anticircumvention law create rights to control otherwise lawful uses.

For example, Article 11 of the WIPO Copyright Treaty requires that “Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.” Under the language of the treaty, the concern is not purely whether access controls are circumvented, but whether anticircumvention is used to prevent acts “which are not authorized by the authors concerned or permitted by law.”⁹³ An infringement nexus requirement, or the other reforms suggested above, conforms to this requirement.

⁹³ Dan L. Burk, *Market Regulation and Innovation: Legal and Technical Standards in Digital Rights Management Technology*, 74 *Fordham L. Rev.* 537, 558 (2005) (“[T]he treaty requires only that signatory states provide ‘adequate legal protection and effective legal remedies’ against circumvention of technological controls. In the United States, such protection would already have been provided under the doctrine of contributory infringement, which attributes copyright liability to providers of technical devices that lack a substantial noninfringing use...The compliance of U.S. law with the requirements of the treaty was so substantial that the Clinton administration initially considered submitting the WIPO Treaty to the Senate for ratification without accompanying implementing legislation.”) (footnotes omitted); *id.* at n. 100 (“the [DMCA’s] anticircumvention provisions contain language very close to that rejected by the treaty Diplomatic Conference as overbroad and detrimental to the public domain.”); Pamela Samuelson, *The U.S. Digital Agenda at WIPO*, 27 *Va. J. Int’l L.* 369, 387 (1997).

Appendix: A Sampling of Invalid Takedowns

DMCA notice abuses come in many forms. Because there are few verification mechanisms, non-copyright holders can readily use notices as weapons against content they don't like.⁹⁴ Small companies try to silence their critics, and so do large ones.⁹⁵ Bad reviews are perennial targets of DMCA notices.⁹⁶ Companies that use fake customer testimonials send DMCA notices to try to suppress exposés of their conduct.⁹⁷ People use takedown notices to hide embarrassing facts about themselves, including criminal convictions.⁹⁸ There are people pursuing grudges through

⁹⁴ See, e.g., Mike Masnick, Copyright As Censorship: Popular Twitter Account Keeps Getting Deleted Over Trollish DMCA Claims, Techdirt (Feb. 16, 2016), <https://www.techdirt.com/articles/20160212/07263033587/copyright-as-censorship-popular-twitter-account-keeps-getting-deleted-over-trollish-dmca-claims.shtml> (discussing harassment via repeated takedown notices).

⁹⁵ E.g., *Online Policy Gp. v. Diebold, Inc.*, 337 F. Supp. 2d 1195 (N.D. Cal. 2004) (takedown notices misused to suppress criticism of voting machine company); Paul Alan Levy, A Bogus DMCA Takedown from Apple, Public Citizen Consumer Law & Policy Blog (Nov. 21, 2013), <http://pubcit.typepad.com/clpblog/2013/11/a-bogus-dmca-takedown-from-apple.html>.

⁹⁶ See, e.g., Reply Comments of Michael Horton, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 4-5 (Horton's video discussing the Stargate franchise was hit with takedown; Conde Nast falsely claimed ownership of video clips in a video about financial aspects of video game companies; in multiple instances, game critics received strikes for negative reviews; anime companies sent out mass DMCA takedowns for "long strings of critical Tweets with screencaps of poorly done official translations").

⁹⁷ Paul Sieminski, Section 512 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary, 113th Cong. (2014) (Statement of Paul Sieminski, General Counsel, Automattic Inc.), available at <https://docs.house.gov/meetings/JU/JU03/20140313/101837/HHRG-113-JU03-Wstate-SieminskiP-20140313.pdf> (describing numerous abuses of takedowns based on disagreement with the posted content).

⁹⁸ A physician claiming a copyright in his signature sent a takedown notice aimed at a document related to the suspension of his license to practice medicine. Section 512 of Title 17: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary, 113th Cong. (2014) (Statement of Katherine Oyama, Sr. Copyright Policy Counsel, Google Inc., at 5) available at http://judiciary.house.gov/_cache/files/be93d452-945a-4fff-83ec-b3f51de782b3/031314-testimony---oyama.pdf. See also Tim Cushing, Another Convicted Felon Tries To Use The DMCA Process To Erase DOJ Press Releases About His Criminal Acts, Techdirt, Jan. 10, 2017, <https://www.techdirt.com/articles/20170108/10023336436/anotherconvicted-felon-tries-to-use-dmca-process-to-erase-doj-press-releases-about-his-criminal-acts.shtml>; Tim Cushing, Convicted Fraudster Follows Bogus DMCA Takedowns With Bogus DMCA Takedown Targeting Techdirt Post About His Bogus Takedowns, Techdirt, Aug. 12, 2015, <https://www.techdirt.com/articles/20150811/08060431909/convicted-fraudster-follows-bogus-dmca-takedowns-with-bogus-dmca-takedown-targeting-techdirt-post-about-his-bogus-takedowns.shtml>; Google Additional Comments, Section 512 Study, <https://www.regulations.gov/document?D=COLC-2015-0013-92487>, at 10 ("Additional recent examples of inappropriate takedown notices include: ● A man seeking to remove from Google's search index the DOJ press release announcing his guilty plea. ● A social media monitoring service seeking to remove its brochure from Scribd after its activities were the subject of a critical report by the ACLU. ● A lawyer seeking removal of a blog post criticizing the lawyer for plagiarizing content on his website. ● A lawyer seeking removal of a document revealing his salary from Google's search index. ● A person posing as a representative of a police department filing DMCA notices demanding that Google remove from the search index mugshot photographs included in news stories related to arrests...."); David Kravets, Revenge Porn Boss Wants Google to Remove His "Identity Related" Info, ARS TECHNICA (Feb. 24 2015, 3:40 PM), <http://arstechnica.com/tech-policy/2015/02/revenge-porn-boss-wants-google-to-remove-his-identity-related-info/>; Jeff Roberts, Bad dentist must pay \$4,677 in case over Yelp threats, GIGAOM (Mar. 3, 2015), <https://gigaom.com/2015/03/03/bad-dentist-must-pay-4677-for-threats-over-yelp-review/>.

takedowns.⁹⁹ There are people who are embarrassed by how they look in a photo who send takedown notices—interfering with the photographer’s copyright rights.¹⁰⁰

One disturbing phenomenon is politically motivated abusive takedowns. In an age in which video plays a vital role in public discussion of the police, police agencies use DMCA notices to suppress video when it’s used in ways they don’t like.¹⁰¹ Scientific disputes about water policy have generated takedown notices.¹⁰² Critics of the Argentinian and Ecuadorian governments have received DMCA takedown notices, and so have reporters on the controversy over this abuse of the takedown system itself.¹⁰³ The WordPress blogging platform alone has documented numerous instances of politically motivated takedowns.¹⁰⁴ This problem of politically-motivated takedown abuse is worst during campaign seasons, when takedown requests can suppress the most effective and cheapest means of communicating political messages.¹⁰⁵ For example, radio personality Michael Savage was able to suppress material criticizing his statements about Muslims, because his takedown notice sabotaged an entire media campaign that had pointed to the now DMCA-suppressed video.¹⁰⁶ The DMCA was also abused as part of the 2016 campaign cycle.¹⁰⁷

⁹⁹ A musician who worked on a videogame on a work for hire basis filed DMCA takedowns against both the company and against users who made videos about the videogame, disrupting numerous livelihoods. Caroline Womack, *Revenge of the Retaliatory Takedown: Let’s Plays, Fair Use, and an Unstable DMCA*, 37 *Quinnipiac L. Rev.* 757, 786-89 (2019).

¹⁰⁰ *E.g.*, David Oxenford, *Axl Rose DMCA Takedown Notices Illustrate the Difficulty with Safe Harbor Reforms – User-Generated Content and Fair Use Issues*, BROADCAST LAW BLOG (June 9, 2016), <http://www.broadcastlawblog.com/2016/06/articles/axl-rose-dmca-takedown-notices-illustrate-the-difficulty-with-safe-harbor-reforms-user-generated-content-and-fair-use-issues/> (discussing Axl Rose’s use of the DMCA to remove unflattering pictures).

¹⁰¹ *E.g.*, Cory Doctorow, *Minneapolis Police Abuse Copyright Law to Censor Their Controversial “Shoot-First” Recruiting Video*, BoingBoing (July 13, 2016, 7:44 AM), <https://boingboing.net/2016/07/13/minneapolis-police-abuse-copyp.html> (“[T]he Minneapolis Police Department has perjured itself in issuing a copyright takedown notice to Youtube in order to suppress a controversial recruiting video that depicted the jobs of MPD officers as being a firearms-heavy shoot-em-up. The video had attracted alarm and criticism by officials and the public, who saw it as indicative of a deep culture of violent, shoot-first policing in the Minneapolis police.”).

¹⁰² Ray Dowd, *Seventh Circuit: Water Scientist Gagged By Lobbying Group’s Bogus Copyright Injunction*, Jan. 27, 2016, <http://copyrightlitigation.blogspot.com/2016/01/seventh-circuit-water-scientist-gagged.html>.

¹⁰³ Adam Steinbaugh, *Ares Rights Adopts Matroyshka Doll Approach To Censorious DMCA Takedown Notices* (Sept. 2, 2014), <http://adamsteinbaugh.com/2014/09/02/ares-rights-adopts-matroyshka-doll-approach-to-censorious-dmca-takedown-notices/>.

¹⁰⁴ Simiensi, *supra*.

¹⁰⁵ See Center for Democracy and Technology, *Campaign Takedown Troubles: How Meritless Copyright Claims Threaten Online Political Speech* (Sept. 2010), https://www.cdt.org/files/pdfs/copyright_takedowns.pdf.

¹⁰⁶ See John Tehranian, *The New Censorship*, 101 *Iowa L. Rev.* 245, 258-59 (2015).

¹⁰⁷ Andy Cush, *John McCain Used to Feel Very Differently About Copyright and Campaign Ads on YouTube*, GAWKER (May 20, 2016, 3:23 PM), <http://gawker.com/john-mccain-used-to-feel-very-differently-about-copyrig-1777804400> (“The campaign of Ann Kirkpatrick ... uploaded a version of a 2010 McCain ad to YouTube with Spanish subtitles added, using the senator’s own words as an implicit critique of his stance on immigration, and by extension, his relations with Arizona’s large Hispanic community... McCain’s camp filed a copyright claim with YouTube about the ad, and it was removed from the site earlier this week.”); Philip Bump, *YouTube’s Copyright System Has Taken Rand Paul’s Presidential Announcement Offline*, THE WASHINGTON POST (April 7, 2015), <http://www.washingtonpost.com/blogs/the-fix/wp/2015/04/07/youtubes-copyright-system-has-taken-rand-pauls-presidential-announcement-offline/>.

Other notices are based on mistaken concepts of rights, and confusion between copyright and other rights. There are people who claim to own all uses of a particular word.¹⁰⁸ There are companies that claim to own facts.¹⁰⁹ Most of the notices the OTW receives are erroneous claims relating to claims of defamation, identical titles of different works, and the like. Numerous other OSPs report similar experiences.¹¹⁰

A wide variety of economic motivations can prompt abusive notices. There are notices sent in order to extort the recipients by threatening them with the loss of revenue from a YouTube channel.¹¹¹ There are notices sent because the parties are having business disputes.¹¹² Like Amazon's Kindle Direct, many sites report that takedown notices are regularly filed in order to suppress competition. Etsy notes that these tactics are especially harmful during the holiday season, because even if there is an immediate counternotification, §512's specified 10-day delay before reinstatement can destroy a business.¹¹³ Ebay sellers face similar attacks.¹¹⁴

Many creators report receiving notices against their own work—the Digital Media Licensing Association's survey of creators produced a number of spontaneous complaints about abusive takedowns even though the DMLA had assumed that takedowns were always correct.¹¹⁵

¹⁰⁸ Michael Weinberg, Shapeways, U.S. Copyright Office Section 512 Public Roundtable 05-02-2016, transcript at 162.

¹⁰⁹ See, e.g., Mike Masnick, Oil Industry Group Claims Copyright On Oil Pricing Data, Gets Twitter To Delete Tweets, Techdirt, Mar. 21, 2011, <https://www.techdirt.com/articles/20160313/09064733889/oil-industry-group-claims-copyright-oil-pricing-data-gets-twitter-to-delete-tweets.shtml>.

¹¹⁰ Cf., e.g., Reply Comments of SoundCloud Operations, Inc., before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 12 (discussing record company takedowns based on use of artist's name); Reply Comments of The Wikimedia Foundation, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 1 ("We reject, unchallenged, over half of the notices we receive as improper and contrary to the mandates of the DMCA.").

¹¹¹ E.g., <https://torrentfreak.com/youtube-strikes-now-being-used-as-scammers-extortion-tool/>.

¹¹² Simiensi, supra ("A model involved in a contract dispute with a photographer submitted a series of DMCA notices seeking removal of images of the model for which the photographer was the rights holder.").

¹¹³ Etsy Additional Comments, Section 512 Study, <https://www.regulations.gov/document?D=COLC-2015-0013-92464>, at 4-5; Schruers, supra (finding that "over half—57%—of [DMCA takedown] notices sent to Google to demand removal of links in the index were sent by businesses targeting apparent competitors.").

¹¹⁴ See *Curtis v. Shinsachi Pharm. Inc.*, 45 F. Supp. 3d 1190 (C.D. Cal. 2014) (entering a default judgment under section 512(f) where a seller alleged that between 2011 and 2013 defendants, who were her competitors, submitted 30 false Notices of Claimed Infringement to eBay, resulting in the removal of at least 140 listings and causing eBay to issue strikes against her selling account).

¹¹⁵ See, e.g., Reply Comments of Digital Media Licensing Ass'n, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 28-30, 43 ("The way it is written now encourages bogus claims of intellectual property ownership because it is too expensive a process to dispute the claim even when you have documentation to prove you were the originator."); *Id.* at 49 ("I just had an attorney tell me that although I had documentation to prove that I was the intellectual property owner ... and that the person who filed the takedown notice was ... infringing [it] would be too expensive to litigate."); *Id.* at 56 ("I have also had non-infringing work have DCMA notices filed against it and have had to submit counter notices myself. There needs to be a process to stop and punish nuisance DCMA filers.") (note that the DMLA classified this and similar answers as "trolling"); *Id.* at 57; *Id.* at 65; *Id.* at 71 ("Encountered issues with other parties using false DMCA claims to take down content I have created. This is especially a problem on Youtube where the automated system makes false matches, but is also frequently done manually there and elsewhere. These tend to come from larger companies or agencies and are almost always very difficult to get resolved (and there have been times where I've had to repost content, as they dispute my counter notification). I've also had times where a DMCA has been filed on my content repeatedly by the

Academic libraries have dealt with publishers' sometimes-overreaching attempts to stop academics from posting their own work.¹¹⁶ At times content owners demand the removal of content they themselves have authorized.¹¹⁷

Individuals may also be exploited by companies seeking to exercise anticompetitive control over public domain works. Andrew Norton, for example, recounted how a company sent him a DMCA notice for his video of a concert by the Jasper County (Georgia) Middle School playing Dvořák's 1893 "Symphony No.9 in E Minor," among other fraudulent claims to which he'd been subjected.¹¹⁸ The Internet Archive has received notices that "mistake volunteer audio recordings of classic works such as Jane Eyre, Sense and Sensibility, Bram Stoker's Dracula, Moby Dick, and Little Women for commercial audiobook editions."¹¹⁹

In other cases, content owners send takedown notices based on fragmentary phrases or common words that happen to match the titles of their—and many other—works.¹²⁰ Overbroad matching algorithms can lead copyright owners to send takedown notices targeting mere reporting on their works, including the IMDB page for a film.¹²¹ Silly errors result—such as the adult

same party. And with strike systems being implemented by Youtube and other websites, it ends up being a threat to my ability to do business. As I cannot afford financially or with time spent to sue for these incidents, there is no deterrent against these companies and agencies continuing their actions. It's gotten to the point that it may be a greater concern for my continued ability to produce content than infringement is."); *Id.* at 74.

¹¹⁶ See Brianna L. Schofield & Jennifer M. Urban, *Berkeley Digital Library Copyright Project Report: Takedown and Today's Academic Digital Library*, U.C. Berkeley Pub. L. Research Paper No. 2694731 (Nov. 2015), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2694731.

¹¹⁷ See, e.g., Jordan Pearson, NBC's Bogus Copyright Claim Got Canada's 'Mr. Robot' Premiere Yanked from Google, VICE (Sept. 4, 2015), <http://motherboard.vice.com/read/nbcs-bogus-copyright-claim-got-canadas-mr-robot-premiere-yanked-from-google>; Adam Rosenberg, 'Pixels' copyright notices took down the studio's own trailer, MASHABLE (Aug. 9, 2015), <http://mashable.com/2015/08/09/pixels-dmca/>; Clicky Steve, When Bots go Bad: Automated DMCA Takedown Problems (April 9, 2015), <https://transparency.automattic.com/2015/04/09/automated-dmca-fail-when-bots-go-bad/> (discussing widely used rights enforcement agency Attributor.com's takedown of copyright owner's own website). See also Annalee Newitz, How Copyright Enforcement Robots Killed the Hugo Awards, IO9 (Sept. 3, 2012), <http://io9.com/5940036/how-copyright-enforcement-robots-killed-the-hugo-awards> (discussing automated takedown of licensed footage that suppressed a larger broadcast); Emil Protalinski, Why automated DMCA takedown requests are asinine: HBO asked Google to censor links to HBO.com, THE NEXT WEB (Feb. 13, 2013), <http://thenextweb.com/media/2013/02/03/why-automated-dmca-takedown-requests-are-asinine-hbo-asked-google-to-censor-links-to-hbo-com> (HBO provided takedown notices about 8 HBO links, as well as links to pages on Perez Hilton's blog, Pinterest, MTV.com, and IGN.com that carried stories about the HBO content at issue); Emil Protalinski, Automated DMCA takedown requests are awful: Microsoft asked Google to delete Bing links, and it did, The Next Web (Oct. 8, 2012), <http://thenextweb.com/microsoft/2012/10/08/automated-dmca-takedown-requests-are-awful-microsoft-asked-google-to-delete-bing-links-and-it-did> (similar).

¹¹⁸ Reply Comments of Andrew Norton, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 4-5.

¹¹⁹ Reply Comments of The Internet Archive, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 3-4.

¹²⁰ See, e.g., Mike Masnick, A Glimpse Of The Future Under SOPA: Warner Bros. Admits It Filed Many False Takedown Notices, Techdirt (Nov. 10, 2011), <https://www.techdirt.com/articles/20111110/10135116708/glimpse-future-under-sopa-warner-bros-admits-it-filed-many-false-takedown-notices.shtml>.

¹²¹ Google Transparency Report, FAQ (visited Mar. 10, 2014)

http://www.google.com/transparencyreport/removals/copyright/faq/#abusive_copy_right_requests ("A major U.S. motion picture studio requested removal of the IMDb page for a movie released by the studio, as well as the official

entertainment company that sent a takedown notice for a review of the 2015 Disney Cinderella movie.¹²²

Docstoc, a document sharing site, repeatedly experienced this problem. As its former counsel explained, “I processed many automated notices that were issues because the title or contents of a document included the title or phrase of some other copyrighted work. For example, I processed requests to take down videos of TV shows or feature films where the name of the show or title of the film is part of a document. We did not host UGC videos. The document did not include portions of a teleplay, screenplay, script, book, or a transcription of any portion of the TV show or film. The document clearly did not infringe upon the rights claimed by a rightsholder in some completely different work.”¹²³

The Internet Archive has also had problems with notices using “loose keyword matching that overclaims works that are clearly not owned by the major content holders they represent,” such as a takedown notice regarding an old Salem cigarette commercial, claiming rights based on a television series called “Salem.” “Similar keyword misidentifications frequently show up as ‘matches’ for music, concerts, home movies, and public domain books,” as well as for “reviews or lesson plans about a given work, rather than for the work itself.” Even a lesson plan from the Department of Education about “To Kill a Mockingbird” has been targeted, and Warner Brothers sent takedown notices for written reviews of films and television programs.¹²⁴

Either due to a mistake by its own enforcers or due to trolling, PlayStation’s icon was removed from social media due to a copyright claim.¹²⁵ On Tumblr, “artists are having their material removed at the behest of the purported true copyright owner, a future-alien being channeled by a present homosapien named Darryl Anka.”¹²⁶ Warner Chappell, which owns rights in Katy Perry’s “Dark Horse,” has asserted rights over a video by a musician explaining why “Dark Horse” did not infringe an earlier song, “Joyful Noise,” despite a recent jury verdict finding infringement; Warner Chappell’s claim is based on the video’s use of elements of “Joyful

trailer posted on a major authorized online media service. A U.S. reporting organization working on behalf of a major movie studio requested removal of a movie review on a major newspaper website twice.”); Emil Protalinski, Microsoft accidentally asked Google to censor BBC, CBS, CNN, Wikipedia, and even the US government, The Next Web (Oct. 7, 2012), <http://thenextweb.com/microsoft/2012/10/07/microsoft-accidentally-asked-google-to-censor-bbc-cbs-cnn-wikipedia-and-even-the-us-government/> (similar); Protalinski, Why automated DMCA takedown requests, *supra* note 4; Matt Schruers, Observations on DMCA Reform and Notice & Takedown Abuse, PROJECT-DISCO (May 23, 2013), <http://www.project-disco.org/intellectual-property/052313observations-on-dmca-reform-and-notice-takedown-abuse/> (discussing multiple attempts to censor unwanted information about notice senders).

¹²² Michael Michaud, U.S. Copyright Office Section 512 Public Roundtable 05-13-2016, transcript at 254-55.

¹²³ Neco Comments, *supra* note 14, at 5; *see also id.* at 6 (discussing wrong requests from music publishers and record labels over song titles and lyric snippets).

¹²⁴ Reply Comments of The Internet Archive, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 3-4.

¹²⁵ Callum Williams, PlayStation Social Media Icon Removed Due to Copyright, Feb. 5, 2020, <https://gamerant.com/playstation-social-media-icon-copyright-remove/>.

¹²⁶ Timothy Geigner, *Tumblr Complies with DMCA Takedown Requests from a Self-Proclaimed Future-Alien from Another Planet*, TechDirt (June 23, 2015, 9:23 AM), <https://www.techdirt.com/articles/20150618/14264131389/tumblr-complies-with-dmca-takedown-requests-self-proclaimed-future-alien-another-planet.shtml>.

Noise”—the song Warner Chappell has just been found to infringe.¹²⁷ Automation produces similar comedy-of-errors situations, such as when Fox downloaded a clip from YouTube, used it in a TV show, then sent a DMCA notice for the years-old clip because it matched a portion of the TV show.¹²⁸

Docstoc’s counsel summarized the situation for many OSPs:

I processed fraudulent, abusive or unfounded notices where people complained that writings critical of them infringed upon their copyright. They did not. I processed fraudulent, abusive or unfounded notices about sex-offender registries or arrest reports / records where people named wanted those documents removed. I processed countless fraudulent, abusive or unfounded notices where the documents being complained of were judicial opinions or orders in the public domain and the complainant was a party named in the lawsuit, judicial opinion or order. I even processed a notice from a fairly well known (in some circles) first amendment / technology / copyright lawyer who asserted that a document critical of that lawyer that contained a photograph of the lawyer, not taken by the lawyer and where the photographer did not assign the traditional rights in the photograph to the lawyer, asserted that the lawyer had a copyright interest in the photograph because [] the lawyer posed for the photograph

... I believe countless fraudulent, abusive or unfounded notices were received by Docstoc. And so countless UGC files were removed from Docstoc based on such notices that perhaps should not have been removed because the notices were fraudulent, abusive or unfounded. Furthermore, it was often easier and safer to simply remove the files that we did happen to review and where we might have otherwise questioned whether there might in fact be copyright infringement than to risk threats of lawsuits by rightsholders.¹²⁹

Counternotices aren’t sufficient protection for noninfringing speech.

Counternotices, which generally need to be sent by individuals with no access to legal counsel, are difficult to navigate. For example, Gordon Byrnes told the Copyright Office about his experience, including repeated DMCA takedown notices against his fair uses or takedown notices filed claiming infringement of a song that isn’t present in his videos. As he points out, this process invites fraudulent claims in order to monetize works to which the claimants have no rights, and given the difficulty of counternotifying, “[a]ll but the most persistent victims of this

¹²⁷ Andy,

YouTube Who Slammed Copyright Lawsuit Against Katy Perry Hit With Copyright Complaint From Perry’s Publisher, Feb. 7, 2020, <https://torrentfreak.com/youtuber-who-slammed-copyright-lawsuit-against-kay-perry-hit-with-complaint-from-perrys-publisher-200207/> (musician points out that “[Warner Chappell] are claiming my video for a melody that they just lost a lawsuit defending”).

¹²⁸ Andy, *Fox “Stole” a Game Clip, Used It in Family Guy & DMCA’d the Original*, TORRENTFREAK (May 20, 2016), <https://torrentfreak.com/fox-stole-a-game-clip-used-it-in-family-guy-dmca-d-the-original-160520/>.

¹²⁹ Reply Comments of Matthew Neco, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 7-8 (footnotes omitted).

abuse of the legal process will simply give up.”¹³⁰ Similarly, Automattic’s statistics show that 10% of notices are simply not credible, but there is a counternotification rate of only .5%.¹³¹ Redbubble reports the same disproportion between credible fair use claims and counternotifications.¹³²

Many users whose content has been taken down either don’t know they can fight the takedown notice or can’t afford to fight it.¹³³ This hesitance is not equally distributed—more marginalized people are likely to assume that protest will be useless even if it’s justified, and so their voices are particularly likely to be suppressed.¹³⁴ Speakers who lack a sense of personal political efficacy (including women, racial minorities, and so on) are often those whose transformative speech is most likely to face challenge from established rightsholders; they are disproportionately likely to be afraid to counternotify. Even professionals who accurately understand their fair use rights and believe that their users are fair often decline to counternotify, according to empirical research among documentary filmmakers. Younger, less experienced filmmakers—precisely the people most likely to decline to assert a valid fair use defense—are particularly likely to experience takedowns.¹³⁵

The widely recognized McMansion Hell blog¹³⁶ engages in architectural criticism—a classic form of fair use. During the blog’s lifetime, the blogger has received thirteen claims of infringement. Of these, twelve were clear-cut and archetypal cases of fair use, given the extensive alteration of and commentary on the images she provides. However, if the rules had been more stringent, her account would likely have been terminated for “repeat infringement.”

¹³⁰ Reply Comments of Gordon Byrnes, before the Copyright Office, Library of Cong., Section 512 Study, Docket No. 2015-7, at 1.

¹³¹ Automattic Comments, *supra* note 4, at 3.

¹³² Engine et al. Comments, *supra* note 19, at 13.

¹³³ See, e.g., Alex Feerst, Medium, U.S. Copyright Office Section 512 Public Roundtable 05-12-2016, transcript at 76 (“Most of the folks who are rewriting or who are parodying or who have simply written something that’s critical, are afraid of the consequences of it if they’re getting smoked out... We’ve gotten that exclusively from folks who say this is a newsworthy speech. This is a photograph of a politician doing something bad that’s been taken down. We don’t have the resources to fight back.”).

¹³⁴ Amy Schmitz, Access to Consumer Remedies in the Squeaky Wheel System, 39 *Pepp. L. Rev.* 279, 311-12 (2012) (explaining that low-income consumers complain less about mistreatment than wealthier consumers); Rebecca L. Sandefur, Money Isn’t Everything: Understanding Moderate Income Households’ Use of Lawyers’ Services, in *Middle Income Access To Justice* 222, 234 (Michael Trebilcock et al. eds., 2012) (low- and moderate-income people rarely pursue legal rights, because they don’t think it will help).

¹³⁵ Patricia Aufderheide & Aram Sinnreich, Documentarians, Fair Use and Free Expression: Changes in Copyright Attitudes and Actions with Access to Best Practices, *Information, Communication & Society*, May 2015, 1-10. doi: 10.1080/1369118X.2015.10500502015 (study of 489 documentary filmmakers; “Almost a quarter (23%) have seen their own videos taken down from internet sites and services following DMCA infringement claims. Among those people, 60% were confident in their fair uses of copyrighted material, yet only half of those whose work was taken down contested it... Early and mid-career filmmakers, whose careers began with the Internet era, are significantly more likely to have experienced DMCA takedowns (24% compared with 17% for veterans.”).

¹³⁶ MCMANSION HELL, <http://www.mcmansionhell.com/> (last visited Jan. 26, 2017). As the creator explains, “McMansionHell aims to educate the masses about architectural concepts, urban planning, environmentalism and history by making examples out of the places we love to hate the most: the suburbs. By alternating comedy-oriented takedowns of individual houses with weekly informative essays about urbanism, architecture, sociology, and interior design, McMansionHell hopes to open readers’ eyes to the world around them, and inspire them to make it a better one.”

Instead, after the first notice, she sought pro bono legal assistance—not something that is available to most users—and is now able to explain fair use to the realtors who target her. Even so, she explains that she would not be financially able to take a case to court were the burden on her to sue to restore her heavily altered images (and, because of the “repeat infringer” provisions, her entire blog). As she concludes, “I had a hard time trying to understand the [notice and counternotice] process before asking a lawyer for help. I think it’s dense for a reason, which is why it’s so heavily abused.”

Counternotices against abusive takedowns can also expose creators’ privacy. One OSP surveyed in the study by U.C. Berkeley School of Law researchers described “cases where allegedly abusive ex-husbands have filed DMCA complaints against images their ex-wife had posted as a means of attempting to get her current address.” When YouTube creator Rebecca Prince considered filing a counter-notice in response to an abusive notice, she “feared that gaining her sensitive information was in fact what this person wanted so he or she could use it to ‘dox’ her – that is, to release her identifying information online to further harass and intimidate her.”¹³⁷

When timeliness is key to speech’s value (as it often is, particularly when it is relevant to the current news cycle), the takedown notice can be crippling to the speaker’s ability to effectively convey her message, because even if she is ultimately able to get the content restored, it may be too late to matter. In fact, because the §512(g) mechanism requires a delay of at least ten business days before the counternotification becomes effective and the challenged material is restored, the damage will have already been done. One mistaken or abusive notification can deny a speaker access to her audience, with far greater impact on the communication environment than failure to take down one (or even many) pure copies of a movie that is widely available in other ways. Thus, the costs of a false positive are often much greater than the costs of a false negative.

Given the difficulty of filing a counternotice for many fair users, improvements in the courts’ treatment of unwarranted claims under §512(f) may be necessary to have any deterrent effect on abusive claims. Likewise, human review in many cases can prevent OSPs from merely acceding to the suppression of speech. Unfortunately, many OSPs act too conservatively—as when Tumblr unhesitatingly accepts the claims of future alien Darryl Anka.¹³⁸

¹³⁷ Urban et al., *Everyday Practice*, supra, at 45 n. 131 (citing Brief of Amici Curiae Yes Men, Rebecca Prince, and May First in Support of Petitioners, at 18, *Lenz v. Universal Music Corp.*, U.S. Supreme Court No. 16-217, available at <http://www.scotusblog.com/wp-content/uploads/2016/09/16-217-amicus-cert-yes-men-et-al.pdf>)

¹³⁸ See Urban et al., *Everyday Practice*, supra, at 41 (“Most OSPs reported acting conservatively in order to avoid liability, opting to take down content even when they are uncertain about the strength of the underlying claim. In some cases, OSPs simply take substantive claims at face value and remove everything if notices conform to section 512’s basic requirements. Four services among our respondents reported a takedown rate of 100%. OSPs uniformly described their conservatism as a result of necessarily prioritizing avoiding liability over taking risks that might protect expression.”).