

Questions for Abigail Rives

1. Congress intended for section 512 to provide strong incentives for service providers and copyright owners to “cooperate to detect and deal with copyright infringements that take place in the digital networked environment.” There have been numerous voluntary initiatives, but many have faded out over the years. What do you think have been the most successful voluntary initiatives, and what areas do you see for future improvement?

Section 512 is fundamentally about copyright owners and online service providers (“OSPs”) cooperating through a clear mechanism for processing claims of infringement. It allocates responsibility appropriately based on who has access to the relevant information and underlying content. While some companies have developed tools and procedures beyond what the statute specifies, in large part because they have financial incentives to lower the often heavy burden of processing takedown notices, uniformity beyond what the current statute contemplates is structurally limited by differences in platform structure and the content users generate.

Many technologies have emerged since 1998 to facilitate detection of potentially infringing material online. While I am not in a position to speak to the details of what all OSPs are doing, I hope the Subcommittee will take the opportunity to learn about those myriad tools during its review of the DMCA. For each company, business model, and type of content, the answer will be different. Likewise, I am not a technologist. But it is essential for Congress to have a realistic understanding of the technology landscape in considering new legislation in this area.

As companies scale, and depending on several factors such as the type of user-generated content they host and the volume of allegedly infringing content, many will voluntarily deploy automated approaches to flag potential infringement. These measures, which some refer to as “DMCA-plus,” tend to be adopted by OSPs that have to manage and respond to larger amounts of claimed infringement.¹ For example, many OSPs deploy hash filtering, video and/or audio fingerprinting, or other filtering systems developed specifically for the needs of the platform including tools based on machine learning. For other OSPs, they may create “trusted sender” programs or give rightsholders direct takedown privileges.² But even the most sophisticated of these tools still suffer from the drawbacks I addressed in my written testimony—including inaccuracy, ease of circumvention, limited scope, and high cost.³

As I discussed in my written testimony, some OSPs have negotiated with rightsholder organizations so that the OSP’s users are authorized to share copyrighted material or, e.g., create fan art.⁴ While this has been successful, and works well for some OSPs, mandating such a

¹ See, e.g., Jennifer M. Urban et al., *Notice and Takedown: Online Service Provider and Rightsholder Accounts of Everyday Practice*, 64 J. Copyright Soc’y U.S.A. 371, 382-83 (2017) (describing “DMCA-plus” and listing examples of measures adopted by OSPs within this category).

² E.g., *id.*, see also, e.g., Advisory Committee on Enforcement, *Role of Intermediaries in IP Enforcement*, World Intellectual Property Organization 2, 9-11, 23 (Aug. 26, 2019), available at https://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_14/wipo_ace_14_11_rev.pdf.

³ E.g., Rives Testimony at 21-22, Appx. A.

⁴ See, e.g., Rives Testimony at 11.

licensing approach would quickly create an impossible burden. And startups (as well as the users and creators who rely on them) would have a distinct disadvantage in any negotiation with lawyers hired by traditional rightsholder communities.

Finally, regarding areas for improvement, there are currently no real penalties for sending improper takedown notices.⁵ As such, the market for developing sophisticated technology is relatively narrow. Larger OSPs that receive a sufficient number of infringement claims develop the tools referred to above. Because they have to answer to the rightsholders claiming infringement, but also seek to protect their users, those OSPs have numerous incentives to try and “get it right.” Rightsholder organizations, on the other hand, also develop tools to detect potential infringement,⁶ but they do not have the same incentive to “get it right.”⁷ If the market for developing sophisticated filtering technology were less-lopsided, that could drive improved technological development.

2. One of the main goals of the DMCA was to implement a notice-and-takedown system that online service providers and copyright owners would find mutually beneficial. If only one side feels like the current system is working, isn’t that a sign of a problem?

Copyright owners and OSPs have long recognized problems with the DMCA and related copyright laws—just different ones. If any stakeholder group were to rewrite the rules governing online copyright liability from scratch themselves, they would not craft identical proposals and neither would replicate every aspect of the DMCA. This is the mark of a compromise—a compromise that remains relevant and successful today.

Focusing narrowly on critiques of § 512 offers a very limited perspective on the DMCA and its efficacy. Likewise, focusing on critiques from the perspectives of “copyright owners” and “OSP,” which are in reality large and diverse groups, also fails to account for the interests of users (who are, of course, copyright owners themselves and depend on OSPs). Such a narrow approach would also fail to account for the broader copyright law, which many OSPs, users, and smaller creators would argue only works for certain traditional rightsholder communities.

The notice-and-takedown system is only one portion of § 512. Section 512 is only a fraction of the DMCA. And the DMCA is one statute in a much broader body of copyright law. For example, even with § 512 and notice-and-takedown, some rightsholders wield disproportionate leverage under the law, and have been able to sue or threaten startups out of existence and stifle non-infringing speech and creativity.

At the same time Congress passed § 512, in 1998 and 1999, Congress also passed many laws that considered certain rightsholders’ interests over those of, e.g., OSPs and users. As part of the DMCA, Congress passed § 1201, which “supplement[ed] the preexisting rights of copyright owners under the Copyright Act [] by establishing separate and distinct legal remedies against []

⁵ See, e.g., Rives Testimony at 15-17.

⁶ Urban, *supra* note 1, at 374.

⁷ See *id.* at 387.

circumvention.”⁸ Also in 1998, Congress extended copyright terms by 20 years in the Sonny Bono Copyright Term Extension Act.⁹ The following year, in 1999, Congress increased statutory damages by 50 percent.¹⁰ On this last point, the availability of immense statutory damages creates ample room for mischief and upsets balance struck within § 512. To the extent the current copyright system is not working, notice-and-takedown is not the problem. If Congress is committed to changing copyright policy in ways that are mutually beneficial for all stakeholders, it should look outside of § 512, as that is where the imbalances are.¹¹

In addition, the measures of the DMCA’s success belie characterizations of an “OSP versus copyright owner” debate.¹² There has been an explosion of creativity and innovation since 1998. The U.S. continues to demonstrate leadership in the global Internet ecosystem. And this success has brought with it entirely new economic models for media and entertainment—opening doors for so many more creators. Individuals who would have never had an opportunity to share or profit from their creativity in the physical world can now reach a global audience thanks to the DMCA.

If Congress were to strip startups and smaller tech companies of the certainty § 512 affords, scores of creators would lose access to the platforms they do or could rely on to reach their fans and customers. And if these OSPs—many of which offer ways for creators to get paid—are put out of business, the users and creators (copyright owners, themselves) who rely on those platforms will also lose access to their fans and customers. There are robust economic sectors that would not be possible but for the DMCA, and upsetting the existing balance in the law would hurt both small platforms and a large and growing class of small, independent creators.

3. Congress intended for section 512 to provide strong incentives for service providers and copyright owners to “cooperate to detect and deal with copyright infringements that take place in the digital networked environment” and to offer “greater certainty to service providers concerning their legal exposure for infringements that may occur in the course of their activities.” If Congress were starting from scratch, should we adopt the same balance as in 1998?

Yes. As above, copyright owners, OSPs, and users have long recognized problems with the DMCA—just different ones. If any stakeholders were to rewrite the rules governing online copyright liability from scratch themselves, they would not craft identical proposals and neither

⁸ *Section 1201 of Title 17: A Report of the Register of Copyrights*, United States Copyright Office i (June 2017), available at <https://www.copyright.gov/policy/1201/section-1201-full-report.pdf>.

⁹ Timothy Lee, *15 years ago, Congress kept Mickey Mouse out of the public domain. Will they do it again?*, Wash. Post (Oct. 25, 2013), <https://www.washingtonpost.com/news/the-switch/wp/2013/10/25/15-years-ago-congress-kept-mickey-mouse-out-of-the-public-domain-will-they-do-it-again/>.

¹⁰ Digital Theft Deterrence and Copyright Damages Improvement Act of 1999, Pub. L. 106-160.

¹¹ See, e.g., *infra* response to question 5 (suggesting statutory damages reform).

¹² The experience and perspectives of diverse user communities is also an essential component of understanding the success of the notice-and-takedown system, and the existence of that diverse set of stakeholders further belies any two-sided characterization of debate concerning § 512.

would replicate every aspect of the DMCA. This is the mark of a compromise, and the compromise Congress struck in 1998 remains relevant and successful today.

As such, if it were starting from scratch today, Congress should still adopt the same broad balance and principles of § 512. Experience over the past twenty years has shown room for minor changes to address improper takedown notices and statutory damages, which could foster innovation and collaboration in addressing online infringement.¹³ But the compromise and balance adopted in 1998 has overall stood the test of time.

4. The Copyright Office report on section 512 identified 12 different substantives areas, including eligible types of service providers, knowledge standards, repeat infringer policies, and notice form requirements. What do you think are the most significant reforms that Congress could make to section 512? If you had to pick one, what revision or clarification of the statute would do the most good?

Overall, § 512 is working well for startups. If there had to be legislative changes, as I noted in my written testimony, improper takedown notices are a significant problem and the current DMCA fails to meaningfully combat that problem.¹⁴ Engine would be supportive of efforts to address that problem, and welcomes the opportunity to engage with lawmakers on potential solutions to, e.g., §§ 512(f) and (g).

5. An article in the Wall Street Journal last month talked about people sending fraudulent takedown notices to make unfavorable news articles disappear from Google Search. This ties into your testimony regarding abusive notices that are used for anti-competitive purposes? How do you recommend Congress fix this?

As above, overall, § 512 is working well for startups and the users and creators who rely on them. The balance and compromise embodied in the law has enabled today's vibrant innovative and creative ecosystems. That said, Congress could consider minor adjustments to §§ 512(f) and (g) and statutory damages reform. As others have explained, "[m]odest modifications to the statutory penalties for abusing the notice-and-takedown process . . . could help by incentivizing senders to send higher quality notices and by giving OSPs comfort that leaving material up or replacing it in response to a counter notice will not subject the OSP or its users to undue liability risk."¹⁵ The problem of improper takedown notices is wrapped up in (1) the fact that the law does not discourage false or deficient notices and (2) it is difficult (and very risky) for OSPs and users to push back against such notices.

First, Congress could incentivize parties to send compliant notices. Section 512(f) sets up a cause of action to combat misrepresentation in notices. But courts require a § 512(f) plaintiff to prove

¹³ See *infra* response to question 5.

¹⁴ Rives Testimony at 11-17.

¹⁵ Urban, *supra* note 1, at 405.

that the defendant *subjectively* knew that it sent a false takedown notice.¹⁶ As such, even those who send objectively improper notices can avoid scrutiny under § 512(f), unless they admit they knew they were sending a false notice or there is other evidence (unlikely) that they knew they were acting in bad faith. Congress could adopt an objective standard for § 512(f), instead.

Likewise, the remedy against improper notices is out of balance in the context of copyright law. Wrongfully accused infringers and the relevant OSPs can only recover actual damages and attorneys fees. By contrast, rightsholders can use the threat of \$150,000 in statutory damages to incentivize removal of content. Congress could restore balance, by either reducing the damages available for infringement (see below), or increasing penalties for improper takedown notices—especially those improper notices that are devised to hurt competition or stifle legitimate speech.

Second, Congress could allow users accused of infringement to counter without automatically assuming the risk of crushing liability. If users were not immediately accepting the risk of statutory damages by submitting a counter notice, the risk of countering would be lower and this avenue would open to more users.¹⁷

Third, statutory damages reform could “alleviate the consequences of OSP’s conservative behavior, which is driven by fear of very high potential liability for their users’ infringements.”¹⁸ To be eligible for the safe harbors, OSPs must remove content in response to a notice, even an improper one. This creates a very strong incentive for takedown, because the OSP could otherwise be liable for \$150,000 in statutory damages for each work allegedly infringed—regardless of the actual damages, if any, caused by the infringement. Risk-averse companies, especially startups, will understandably be inclined to remove content. Some OSPs have, at times, refused to remove content when they receive improper notices, but they do that at great personal risk. If OSPs had flexibility to evaluate problematic notices, and could push back without exposing themselves to absurd statutory damages risks, they could play a more significant role in combating improper notices. Congress could either reduce statutory damages or make damages sensible in relation to the harm caused. Particularly for secondary infringement claims, actual damages make far more sense.

Fourth, at the very least, Congress should avoid making the problem worse. The existing inclination to over-takedown would be exacerbated if OSPs faced more liability for user-generated posts (i.e., if Congress reduced the “red flag” knowledge standard or imposed an affirmative duty to monitor). And if OSPs were forced to deploy technology to conduct review and removal, it would likewise result in more problematic takedowns.

Finally, the Copyright Office has correctly identified education as an opportunity, and plans to launch educational efforts relevant to the DMCA.¹⁹ The burden imposed by improper notice

¹⁶ *Rossi v. Motion Picture Ass’n of Am., Inc.*, 391 F.3d 1000, 1004-05 (9th Cir. 2004).

¹⁷ 17 U.S.C. § 512(g)(3)(D); *see also* Rives Testimony at 16-17 (discussing drawbacks of § 512(g)).

¹⁸ Urban, *supra* note 1, at 407.

¹⁹ *See Section 512 of Title 17: A Report of the Register of Copyrights*, United States Copyright Office 6, 171-73 (May 2020), available at <https://www.copyright.gov/policy/section512/section-512-full-report.pdf> [hereinafter “Copyright Office Report”].

senders and some volume of infringement claims could be alleviated by better education for Internet users about what is (and is not) copyright infringement, how to send a proper notice, and which individuals possess rights to enforce a copyright.

6. The Copyright Office report on section 512 talked about the need to not think of section 512 as one-size-fits all. This seems particularly important for dealing with—and encouraging innovation by—start-ups. What suggestions do you have for reforming section 512 so that it accounts for differences in size and scalability?

The Copyright Office’s report correctly acknowledges there are many differences within and among stakeholders. Unfortunately, the Copyright Office recommends a “reasonableness standard” to “right-size” § 512.²⁰ As I discuss in my written testimony, conditioning safe harbor protections on a startup adopting a “reasonable” approach to affirmative monitoring would be unworkable. Such a standard would have to be defined on a case-by-case basis in the courts. Early-stage startups raise an average of \$78,500 during their first year, but proceeding just through discovery in such a lawsuit could exceed \$500,000.²¹ If it costs more money than a startup has to prove its practices are reasonable, such a safe harbor would have little practical value.²²

Likewise, the baseline of “reasonableness” will constantly evolve, eliminating certainty that a startup’s practices are “enough” to qualify for safe harbors. Reasonableness is inherently flexible, and what is reasonable one month might not be reasonable the next—as technology evolves, a company grows, or infringement claims change. Similarly, much of the case law, to-date, that shapes our understanding of the DMCA was litigated by (now) larger OSPs. Today’s startups have the benefit of following in the footsteps of litigants who took the time and money to seek clarity in the law. If the law that applies to larger companies is no longer the same law that applies to all OSPs, startups and smaller tech companies would have to defend each individual case on their own. Larger OSPs would still be able to afford to adopt enhanced measures and litigate lengthy cases to prove they are doing “enough,” but startups and smaller OSPs would no longer be able to seek certainty and protection within those decisions.

²⁰ Copyright Office Report at 124.

²¹ Evan Engstrom, *Primer: Value of Section 230*, Engine (Jan. 31, 2019), <https://www.engine.is/news/primer/section230costs>; *Startup Funding Infographic*, Fundable, <https://www.fundable.com/learn/resources/infographics/startup-funding-infographic> (last visited May 29, 2020).

²² Rives Testimony at 20, 22; Appx. A.

**Abigail Rives –
Is the DMCA’s Notice-and-Takedown
System Working in the 21st Century?
Questions for the Record
Submitted June 9, 2020**

QUESTIONS FROM SENATOR COONS

- 1. The Senate Judiciary Committee’s 1998 report on the Digital Millennium Copyright Act (DMCA) stated that “technology is likely to be the solution to many of the issues facing copyright owners and service providers in the digital age,” and the Committee “strongly urge[d] all of the affected parties expeditiously to commence voluntary, interindustry discussions to agree upon and implement the best technological solutions available to achieve these goals.” Unfortunately, as noted in the recent Copyright Office report on Section 512, “Congress’ vision of broad, open, cross-industry standards-setting for the creation of standard technical measures has not come to pass.” Why do you think that is, and do you have any hope that future voluntary standardization of technical measures will combat digital piracy effectively?**

At the outset, Section 512(i) conditions safe harbor eligibility on accommodating technology, and specifies that service providers only qualify for § 512’s limitations on liability if they “accommodate[] and do[] not interfere with standard technical measures.”¹ Such measures are defined as “technical measures that are used by copyright owners to identify or protect copyrighted works.”² The Subcommittee has already heard from individuals involved in DMCA negotiations regarding the concerns this language was directed to, including as it pertains to the report language quoted in this question.³

Separately, many technologies have emerged since 1998 to facilitate online service providers (“OSPs”) in detection of potentially infringing material online. No single tool has been adopted by every OSP—and, as detailed below, it would not make sense for every OSP to adopt one technology. But understanding the technical realities is essential to legislation in this area, and I hope the Subcommittee will take the opportunity to learn about those myriad tools during its review of the DMCA.

As companies scale, and depending on a variety of factors—such as the type of user-generated content they host and the volume of allegedly infringing content—many companies will voluntarily deploy automated approaches to flag potential infringement. These measures, which some refer to as “DMCA-plus,” tend to be adopted by OSPs that have to manage and respond to

¹ 17 U.S.C. §512(i)(1)(B).

² 17 U.S.C. §512(i)(2).

³ Responses to Questions for the Record of Jonathan Band, *The Digital Millennium Copyright Act at 22: What is it, why it was enacted, and where we are now: Hearing Before the Subcomm. on Intellectual Property of the S. Comm. on the Judiciary*, 116th Congress, 2, 8-9 (2020), available at <https://www.judiciary.senate.gov/imo/media/doc/Band%20Responses%20to%20QFRs.pdf>.

larger amounts of claimed infringement.⁴ For example, many OSPs deploy hash filtering, video and/or audio fingerprinting, or other filtering systems developed specifically for the needs of the platform including tools based on machine learning.⁵ But even the most sophisticated of these tools still suffer from the drawbacks I addressed in my written testimony—including inaccuracy, ease of circumvention, limited scope, and high cost.⁶

Even a cursory review of existing tools also reveals inherent hurdles to adopting any as standard. The when, how, and what of developing these tools depends heavily on the OSP: what works for video streaming where users monetize creations through ad revenue cannot translate to a multimedia platform where users sell creative works directly to fans. Indeed, given how ubiquitous and diverse content is, *one tool* cannot be expected to identify the *many types of potential infringement* in and of the *many types of content* on the *many types of platforms*.

Moreover, some OSPs will be able to tolerate the inherent limitations of each tool, but others cannot. For example, tools that seek to detect infringement in music works are more accurate for certain types of music than others. Automated detection of infringement has shown substantial failures in classical music.⁷ This is, at least in part, a function of differences in the underlying creative works, because for classical music “the bulk of the repertoire [is] in the public domain, [and] the differences between particular performances are much more subtle.”⁸ Forcing platforms that serve the classical music community to adopt a standard screening technology that was built to suit all types of music would put those creators and fans at a distinct and unfair disadvantage.

And none of the technology or automation tools make sense for platforms that encounter no or almost-no infringement. All of the tools are expensive to implement and maintain, and even minor failures come with extraordinarily high legal liability. It is difficult to justify imposing those increased costs and risks on every OSP when the tools would not catch much (if any) more infringement, because there is so little on those platforms to begin with.

Endorsing a specific technology as the “standard” would also become quickly outdated. First, technology can and should be allowed to advance. Under the current framework, companies improve their “DMCA-plus” approaches. As of 2016, YouTube had invested \$60 million to

⁴ See, e.g., Jennifer M. Urban et al., *Notice and Takedown: Online Service Provider and Rightsholder Accounts of Everyday Practice*, 64 J. Copyright Soc’y U.S.A. 371, 382-83 (2017) (describing “DMCA-plus” and listing examples of measures adopted by OSPs within this category).

⁵ E.g., *id.*, see also, e.g., Advisory Committee on Enforcement, *Role of Intermediaries in IP Enforcement*, World Intellectual Property Organization 2, 9-11, 23 (Aug. 26, 2019), available at https://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_14/wipo_ace_14_11_rev.pdf.

⁶ E.g., Rives Testimony at 21-22, Appx. A.

⁷ See, e.g., Michael Andor Brodeur, *Copyright Bots and Classical Musicians Are Fighting Online. The Bots are Winning.*, Wash. Post (May 21, 2020), https://www.washingtonpost.com/entertainment/music/copyright-bots-and-classical-musicians-are-fighting-online-the-bots-are-winning/2020/05/20/a11e349c-98ae-11ea-89fd-28fb313d1886_story.html (describing copyright identification algorithms removing live classical music performances performed remotely and online due to COVID-19 pandemic).

⁸ Vance R. Koven, *Fair Use of Flickers*, The Boston Musical Intelligencer (May 30, 2020), <https://docs.google.com/document/d/1TG4Pg0iBlcCo3DNB9Iydvhl79ZEJHfdTHj7Jfjo8Yk/edit#>.

develop ContentID,⁹ but in the subsequent two years it invested an additional \$40 million (totaling over \$100 million).¹⁰ Second, types of creative content are subject to rapid innovation, and imposing outdated standards to monitor for infringement could hinder innovation in creative expression. Third, efforts to evade filtering technology will be (and are) a reality. Users intent on infringing will find workarounds to these tools.

Finally, there are currently no real penalties for sending improper takedown notices.¹¹ As such, the market for developing sophisticated technology is relatively narrow. Larger OSPs that receive a sufficient number of infringement claims develop the tools referred to above. Because they have to answer to the rightsholders claiming infringement, but also seek to protect their users, those OSPs have numerous incentives to try and “get it right.” Rightsholder organizations, on the other hand, also develop tools to detect potential infringement,¹² but they do not have the same incentive to “get it right.”¹³ If the market for developing sophisticated filtering technology were less-lopsided, that could drive improved technological development.

2. The Copyright Office report made several recommendations for possible legislation, including clarifying the scope of eligible online service provider (OSP) activity; promoting clarity and transparency in OSP repeat-infringer policies; clarifying standards like “red-flag knowledge” and “willful blindness”; clarifying the right to submit representative lists of infringing material; increasing penalties for misrepresentations in abusive notices or counter-notices; shifting the notice requirements to a regulatory scheme to provide flexibility; establishing an alternative dispute resolution mechanism; clarifying the right to subpoena OSPs to identify alleged infringers; and considering whether injunctive relief beyond notice-and-takedown is warranted. Do you agree with these recommendations? How would you suggest we approach these issues, and how would you prioritize them?

Overall, § 512 is working well for startups and the users and creators who rely on them. Legislative changes could have an outsized and negative impact on startups in particular. I elaborate on many of these points in my written testimony. Briefly:

- The existing definitions of which service providers are eligible for safe harbors is appropriately broad and flexible. Congress should not constrict those definitions.¹⁴

⁹ Katherine Oyama, *Continuing to create value while fighting piracy: an update*, Google (Jul 13, 2016), <https://blog.google/outreach-initiatives/public-policy/continuing-to-create-value-while/>.

¹⁰ Paul Sawers, *YouTube: We’ve invested \$100 million in Content ID and paid over \$3 billion to rightsholders*, VentureBeat (Nov. 7, 2018), <https://venturebeat.com/2018/11/07/youtube-weve-invested-100-million-in-content-id-and-paid-over-3-billion-to-rightsholders/>.

¹¹ See, e.g., Rives Testimony at 15-17.

¹² Urban, *supra* note 4, at 374.

¹³ See *id.* at 387.

¹⁴ Rives Testimony at 17-18.

- OSPs should retain flexibility in defining and implementing repeat infringer policies. Judicial conceptions of a “repeat infringer” are problematic, because courts have started to treat repeat *accused* infringers as repeat *actual* infringers,¹⁵ despite the fact that the statute uses different language to refer to claims of infringement and repeated acts of infringement.¹⁶ The Copyright Office’s report is concerning to the extent it is read to endorse that *mere accusations* of infringement should be enough to remove users from the Internet or deprive small, independent creators of their ability to post their own creations.¹⁷ Mere (and often improper) allegations of infringement should not be enough to remove someone from a platform. And OSPs should not be forced to expel their customers, users, and creators based on mere allegations of infringement. Instead, OSPs need flexibility to develop and apply repeat infringer policies, to collect and review facts of individual cases and remove those users deemed to be actual repeat infringers. Binding them to rigid frameworks, and necessarily tying these decisions to allegations of infringement, will just make it easier for abusers to know what accusations to make to stifle competitors, other creators, critics, or Internet users.
- The current knowledge standards are well-tailored, and changes in this area of the law would put startups and their users at a significant disadvantage.¹⁸
- On the topic of alternative dispute resolution, while I may not disagree in principle, this question and the Copyright Office’s report implicate a problematic bill currently moving through Congress. The CASE Act (S. 1273) does not offer a fair and viable solution to online infringement, and instead would incentivize bad faith copyright infringement claims and create potential traps for startups and their users.¹⁹ That bill was introduced for the first time in the Senate last spring and has never had a hearing in this chamber. I hope that Congress and this Subcommittee will take the time to formally collect stakeholder perspectives and weigh alternative approaches that could

¹⁵ *E.g. BMG Rights Mgmt. (US) LLC v. Cox Commc’ns Inc.*, 881 F.3d 293 (2018).

¹⁶ *E.g., compare* 17 U.S.C. § 512(c)(3)(A) *with* § 512(i)(1)(A) (referring separately to “notification[s] of *claimed* infringement” versus “repeat infringers”) (emphasis added).

¹⁷ *Section 512 of Title 17: A Report of the Register of Copyrights*, United States Copyright Office 103 (May 2020), available at <https://www.copyright.gov/policy/section512/section-512-full-report.pdf> (asserting that the definition of repeat infringer “means repeat *alleged* infringer”) (emphasis original) [hereinafter “Copyright Office Report”].

¹⁸ Rives Testimony at 18-23.

¹⁹ Abby Rives, *CASE Act Does Not Offer Viable Solution to Online Infringement*, Engine (July 11, 2019), <https://www.engine.is/news/case-act-does-not-offer-viable-solution-to-online-infringement>; Abby Rives, *Startups Need Certainty, Not Unaccountability and Confusion in Copyright Law*, Inside Sources (Sept. 10, 2019), <https://www.insidesources.com/startups-need-certainty-not-unaccountability-and-confusion-in-copyright-law/>; Letter to Speaker Pelosi, Sen. Feinstein, & Sen. Harris from Automattic, GitHub, Patreon, Pinterest, Reddit (Oct. 3, 2019), <https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/5d9664cdd8a0454502015eae/1570137293411/2019.10.03+Letter+re+CASE+Act-2.pdf>; Letter to Sen. Wyden from Automattic, Etsy, GitHub, Patreon, Pinterest, Reddit (May 15, 2020), <https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/5ebef732cb8c5651cdc49832/1589573426981/2020.05.15+Letter+to+Senator+Wyden+re+CASE+Act.pdf>.

give copyright owners the benefits they seek without the harmful consequences startups and users would face under the current proposal.

- The Copyright Office has correctly identified education as an opportunity, and plans to launch educational efforts relevant to the DMCA.²⁰ The burden imposed by improper notice senders and some volume of infringement claims could be alleviated by better education for Internet users about what is (and is not) infringement, how to send a proper notice, and which individuals possess rights to enforce a copyright.
- Finally, the Copyright Office’s report does not recommend increased penalties for misrepresentations in abusive notices or counter-notices. Instead, the Copyright Office noted that many people raised concerns of that nature.²¹ As I discussed in my written testimony, improper takedown notices are a significant problem and the current DMCA fails to meaningfully combat that problem.²² Engine would be supportive of efforts to address that problem, and welcomes the opportunity to engage with lawmakers on potential solutions.

3. The Copyright Office also recommended that we reject a one-size-fits-all approach to modern internet policy. How would you suggest that we accommodate differences among stakeholders as we evaluate the DMCA?

The Copyright Office’s report correctly acknowledges there are many differences within and among stakeholders. Unfortunately, the Copyright Office recommends a “reasonableness standard” to “right-size” § 512.²³ As I discuss in my written testimony, conditioning safe harbor protections on a startup adopting a “reasonable” approach to affirmative monitoring would be unworkable. Such a standard would have to be defined on a case-by-case basis in the courts. Early-stage startups raise an average of \$78,500 during their first year, but proceeding just through discovery in such a lawsuit could exceed \$500,000.²⁴ If it costs more money than a startup has to prove its practices are reasonable, such a safe harbor would have little practical value.²⁵

Likewise, the baseline of “reasonableness” will constantly evolve, eliminating certainty that a startup’s practices are “enough” to qualify for safe harbors. Reasonableness is inherently flexible, and what is reasonable one month might not be reasonable the next—as technology evolves, a company grows, or infringement claims change. Similarly, much of the case law, to-

²⁰ See Copyright Office Report at 6, 171-73.

²¹ See *id.* at 5, 145-50.

²² Rives Testimony at 11-17.

²³ Copyright Office Report at 124.

²⁴ Evan Engstrom, *Primer: Value of Section 230*, Engine (Jan. 31, 2019), <https://www.engine.is/news/primer/section230costs>; *Startup Funding Infographic*, Fundable, <https://www.fundable.com/learn/resources/infographics/startup-funding-infographic> (last visited May 29, 2020).

²⁵ Rives Testimony at 20, 22; Appx. A.

date, that shapes our understanding of the DMCA was litigated by (now) larger OSPs. Today's startups have the benefit of following in the footsteps of litigants who took the time and money to seek clarity in the law. If the law that applies to larger companies is no longer the same law that applies to all OSPs, startups and smaller tech companies would have to defend each individual case on their own. Larger OSPs would still be able to afford to adopt enhanced measures and litigate lengthy cases to prove they are doing "enough," but startups and smaller OSPs would no longer be able to seek certainty and protection within those decisions.

4. How can the notice-and-takedown process be improved, particularly for small creators? Would you recommend standardizing the process across service providers? If so, who should be responsible for establishing and enforcing those standards?

As I discussed in my written testimony, small, independent creators can (and unfortunately do) suffer from improper notices under the current system.²⁶ For those small, independent creators who rely on fair use to make their works and are subject to repeated specious takedown notices, § 512 offers virtually no way for them to stop these abusive claims. The process could be improved by creating disincentives to reduce the volume and impact of improper notices, as well as opening up realistic avenues for wrongfully-accused infringers to counter. For example, users accused of infringement could counter without automatically assuming the risk of crushing liability. If users were not immediately accepting the risk of statutory damages by submitting a counter notice, the risk of countering would be lower and this avenue would open to more users.²⁷ In addition, wrongfully accused infringers can only recover actual damages and attorneys fees. By contrast, rightsholders can use the threat of \$150,000 in statutory damages to incentivize even unjustified removal of content. Balance could be restored by either reducing the damages available for infringement or increasing penalties for improper takedown notices—especially those improper notices that are devised to hurt competition or stifle legitimate speech.

5. The Copyright Office declined to make recommendations regarding a “notice-and-staydown” system. Should Congress consider this alternative to the “notice-and-takedown” framework? Why or why not? Would you support a middle ground that would require OSPs to ensure that once infringing content has been removed pursuant to Section 512, the same user cannot repost the same content on any platform controlled by that provider?

Congress should not impose “notice-and-staydown,” as that would amount to an unattainable filtering mandate. Implementing notice-and-staydown would require OSPs to review every single user-generated post, and—even for an early stage company—that would quickly become impossible without technologies to mark and identify potentially infringing material. And when that technology failed (which it does, and would), OSPs would face massive liability. As counsel at Patreon described a few years ago: “If a law like takedown staydown existed three years ago, we never would have received funding to start as a company because of the massive liabilities

²⁶ *E.g.*, Rives Testimony at 12-17.

²⁷ 17 U.S.C. § 512(g)(3)(D); *see also* Rives Testimony at 16-17 (discussing drawbacks of § 512(g)).

associated with user-generated content.” Indeed, not only would staydown be bad for startups, but it would also be bad for users and creators, because the resulting lack of these platforms would mean—even just looking at Patreon as an example—one billion dollars out of the pockets of small, independent creators.²⁸

As discussed in my written testimony, the technology needed to implement notice-and-staydown accurately and thoroughly does not exist, and forcing OSPs to deploy even existing technology would cost more than what most startups can afford, without even taking into account the ruinous legal liability associated with a single missed infringement.²⁹ Imposing mandatory filtering through a staydown requirement would further impact the cost of market entry, because it would require all OSPs to implement “costly automated enforcement” as soon as the first (and potentially the only) rightsholder issues a takedown notice.³⁰ Put another way, an OSP that has only ever received one notice of claimed infringement would have to manually or automatically review every subsequent user-generated post to assess if it is potentially infringing the content in that one notice.

What is identified as a “middle ground” here would not solve the problem, because it would still depend on using the same unavailable, and at best imperfect and expensive technology, to identify whether a post contains the “same content.” Interpreting the use of “same content” very narrowly, this question could be read to suggest use of hash-based filtering. Hash-based filtering involves using a specialized algorithm to produce a unique code (a “hash”) that can be used to identify a specific file.³¹ But hash-based filtering only works to identify exact duplicates of content, and even minor changes to an allegedly infringing file would evade such a tool.³² There are plenty of indications that mandatory hash-based filtering is not an acceptable solution.

First, companies already use hash-based filtering³³—if it were considered an acceptable solution, presumably we would not be having these conversations right now. OSPs already deploy hash filtering when it makes sense (e.g., based on the maturity of the company and the volume and type of content it hosts). For example, Veoh was using hash filtering when UMG sued it into

²⁸ Colin Sullivan, *Creators and Tech Companies Can Be Friends*, Medium (Jan. 19, 2017), <https://patreonhq.com/creators-and-tech-companies-can-be-friends-c18a8508c60d>; *About*, Patreon, <https://www.patreon.com/about> (last visited June 22, 2020).

²⁹ Rives Testimony at 18-19, 21-23, Appx. A.

³⁰ Martin Husovec, *The Promises of Algorithmic Copyright Enforcement: Takedown or Staydown? Which is Superior? And Why?*, 42 Colum. J.L. & the Arts 53, 77 (2018).

³¹ Evan Engstrom & Nick Feamster, *The Limits of Filtering: A Look at the Functionality & Shortcomings of Content Detection Tools* i-ii, 12-13 (Mar. 2017), available at <https://www.engine.is/the-limits-of-filtering>.

³² *Id.* at 12-13.

³³ E.g. U.S. Copyright Office Section 512 Study Public Roundtable at 223:9-18 (May 12, 2016) (comments of Brian Willen) (“practically, most responsible service providers do something in the way of -- whether it’s MD5 hashing or other mechanisms to try to take the body of copyright notices that they receive and make sure that identical copies of those are not reposted”).

bankruptcy,³⁴ Dropbox uses it,³⁵ YouTube uses it,³⁶ and empirical studies suggest that hash filtering is one of the first tools an OSP adopts when it automates, or enters the “DMCA-plus” world.³⁷ And others have confirmed that hash-based filtering is not what rightsholders seek from a staydown regime.³⁸

And it is no great surprise that hash-based filtering is not viewed as a solution. Since it can only be used to identify exact duplicate files, hash-based filters can be easily evaded by users intent on uploading infringing content. Instead, what becomes apparent in these conversations is that the “same content” to one stakeholder is actually many different pieces of content to others. Where one rightsholder sees one piece of content—perhaps the chorus of a single song—an OSP and Internet users encounter multiple different videos, podcasts, online courses, licensed music streams, licensed live performances, and myriad other pieces of material which play something like the chorus. Some of those uses might be infringing and others decidedly are not. But each would certainly have a different hash. And taking a broader definition of “same content” when building the technology to implement “staydown” would be very complex and expensive.

Here again, for many OSPs that experience (almost) no infringement, mandatory hash-based filtering would not make sense for the same reasons that forcing those OSPs to adopt any automation would impose undue costs, risks, and liabilities with little or no upside.³⁹

Finally, as noted in my written testimony, staydown is a rigid, inflexible concept that fails to acknowledge that copyright infringement is highly fact- and context-specific.⁴⁰ Assuming the first takedown notice is proper, it does not mean that a second use of the same content is

³⁴ *UMG Recordings, Inc. v. Shelter Capital Partners LLC*, 718 F.3d 1006, 1012 (9th Cir. 2013) (explaining that Veoh’s “hash filter also automatically disables access to any identical videos and blocks any subsequently submitted duplicates”).

³⁵ Greg Kumparak, *How Dropbox Knows When You’re Sharing Copyrighted Stuff (Without Actually Looking At Your Stuff)*, TechCrunch (Mar. 30, 2014), <https://techcrunch.com/2014/03/30/how-dropbox-knows-when-youre-sharing-copyrighted-stuff-without-actually-looking-at-your-stuff/>.

³⁶ Comments of Google, *In re* Section 512 Study, Docket No. 2015-7, at 13 (Apr. 7, 2016), available at <https://www.regulations.gov/document?D=COLC-2015-0013-90806>.

³⁷ Jennifer M. Urban, Joe Karaganis & Brianna L. Schofield, *Notice and Takedown in Everyday Practice* 55 (Mar. 2017), available at <https://community.icann.org/download/attachments/58727388/Notice%20and%20Takedowns%20in%20Everyday%20Practice%20-%20Online%20Takedowns%20Study.pdf?version=1&modificationDate=1460103206000&api=v2>.

³⁸ U.S. Copyright Office Section 512 Study Public Roundtable at 242:11-14 (May 12, 2016) (comments of Jeffrey Sedlik) (“And I’m not talking about MD5 hash because that’s not effective for photography because the images get resaved and the hash changes every time it’s resized or changed.”); *see also, e.g.*, Comments of American Association of Independent Music et al. (“Music Community”), *In re* Section 512 Study, Docket No. 2015-7, at 29 (Apr. 7, 2016), available at <https://www.regulations.gov/document?D=COLC-2015-0013-89806> (suggesting limited effectiveness of hash filtering).

³⁹ *See, e.g.*, Comments of Organization for Transformative Works, *In re* Section 512 Study, Docket No. 2015-7, at 2-3 (Apr. 7, 2016), available at <https://www.regulations.gov/document?D=COLC-2015-0013-86027> (describing how staydown “would make it impossible for new services to launch and for many existing services . . . to continue to operate”).

⁴⁰ Rives Testimony at 22-23.

infringing. The second instance could be a licensed or permitted use, a modified version, an educational use, or a fair use. Requiring staydown would signal that such perfectly legitimate uses should be blocked.

Written Question for Abigail Rives
Submitted by Senator Leahy
June 9, 2020

1. **You stated in your testimony that content creators are best positioned to police the internet for infringement of their own creations, while placing this burden on online service providers would require them to “learn, identify, and monitor the alleged infringement of millions and millions of copyrighted works.” Other panelists at the hearing testified that content creators already spend a substantial portion of their time policing the web for infringement but feel trapped in a game of “whack-a-mole” because of the vastness of the internet and the ease with which infringers can simply repost removed content elsewhere.**
 - a. **How would you respond to the concerns of content creators who are unable to effectively police the internet for infringements of their own content?**

Imposing more legal liability on online service providers (“OSPs”) will not help resolve these concerns. As I discussed in my written and oral testimony, most OSPs do not see much (if any) infringement. Making all of those OSPs legally responsible for user-generated posts, or making them all responsible for reviewing every user-generated post, would not solve the concerns summarized in this question.

Likewise, if Congress were to strip startups and smaller tech companies of the certainty § 512 affords, scores of creators would lose access to the platforms they do or could rely on to reach their fans and customers. Startups need certainty that accusations of infringement against their users (accused infringement they have no knowledge of or involvement in) will not automatically strap them with unaffordable legal exposure. Since statutory damages and litigation costs are massive, liability for even a single claim of infringement would be problematic for a startup (and even if a user’s post is not actually infringing, the costs for an OSP to prove that in court can be staggering). The costs of monitoring are likewise expensive, but even for a platform with little or no infringement, monitoring would be mandatory because assuming the risks of litigation are simply too high. Moreover, these companies and many entrepreneurs would never be able to secure the financing they need to bring new services to market, because investors are reluctant to cover the costs of platform liability for user infringement. Overall, few companies would be able to afford these costs, reducing the number of platforms available to creators, users, fans, and customers.

Putting these OSPs, and their users and creators, out of business would not help resolve the problems articulated in this question, either, but would have significant negative consequences. Especially right now, when we need startups to help us grow our economy and when these platforms are the only way for many creators to connect and earn an income during the pandemic, it is not the time to impose unaffordable costs and unmanageable liability on these important sectors of economic growth.

2. In your testimony you stated that a change to Section 512 would place a substantial burden on startups and smaller online service providers that lack the resources to implement filtering technologies.

a. What specific and/or unique challenges would smaller or startup online service providers face if a notice and stay-down system were to be implemented? If a website blocking system were to be implemented?

Imposing “notice-and-staydown” would amount to an unattainable filtering mandate. It would require OSPs to review every single user-generated post, and—even for an early stage company—that would quickly become impossible without technologies to mark and identify potentially infringing material. And when that technology failed (which it does, and would), OSPs would face massive liability. As counsel at Patreon described a few years ago: “If a law like takedown staydown existed three years ago, we never would have received funding to start as a company because of the massive liabilities associated with user-generated content.” Indeed, not only would staydown be bad for startups, but it would also be bad for users and creators, because the resulting lack of these platforms would mean—even just looking at Patreon as one example—one billion dollars out of the pockets of small, independent creators.¹

As discussed in my written testimony, the technology needed to implement notice-and-staydown accurately and thoroughly does not exist, and forcing OSPs to deploy even existing technology would cost more than what most startups can afford, without even taking into account the ruinous legal liability associated with a single missed infringement.² Imposing mandatory filtering through a staydown requirement would further impact the cost of market entry, because it would require all OSPs to implement “costly automated enforcement” as soon as the first (and potentially the only) rightsholder issues a takedown notice.³ Put another way, an OSP who has only ever received one notice of claimed infringement would have to manually or automatically review every subsequent user-generated post to assess if it is potentially infringing the content in that one notice. For a startup, that would mean having the money and staff to purchase and maintain a filter by the day it receives its first takedown notice (which would be impossible to predict).

Here again, for many OSPs that experience (almost) no infringement, mandatory filtering for staydown would not make sense for the same reasons that forcing those OSPs to adopt any automation would impose undue costs, risks, and liabilities with little or no upside.⁴

¹ Colin Sullivan, *Creators and Tech Companies Can Be Friends*, Medium (Jan. 19, 2017), <https://patreonhq.com/creators-and-tech-companies-can-be-friends-c18a8508c60d>; *About*, Patreon, <https://www.patreon.com/about> (last visited June 22, 2020).

² Rives Testimony at 18-19, 21-23, Appx. A.

³ Martin Husovec, *The Promises of Algorithmic Copyright Enforcement: Takedown or Staydown? Which is Superior? And Why?*, 42 Colum. J.L. & the Arts 53, 77 (2018).

⁴ See, e.g., Comments of Organization for Transformative Works, *In re Section 512 Study*, Docket No. 2015-7, at 2-3 (Apr. 7, 2016), available at <https://www.regulations.gov/document?D=COLC-2015-0013-86027> (describing how

3. **In your written submissions to the Subcommittee you discussed the shortcomings of existing filtering technologies, such as metadata- or hash-based comparisons and fingerprinting.**
 - a. **How, if at all, are technology companies and online service providers working toward improving these and other technologies in order to make them viable means of monitoring the internet for pirated content?**

Many technologies have emerged since 1998 to facilitate detection of potentially infringing material online. While I am not in a position to speak to the details of what all OSPs are doing, I hope the Subcommittee will take the opportunity to learn about those myriad tools during its review of the DMCA. For each company, business model, and type of content, the answer will be different. Likewise, I am not a technologist. But it is essential for Congress to have a realistic understanding of the technology landscape in considering new legislation in this area.

Regarding metadata and hash-based comparisons, the shortcomings of the technology are largely baked-in. They are either relatively non-specific (metadata searching) and/or are easy to circumvent. Metadata contains various information about a file, such as file type, title, length, size, date, author, and so forth. However, because it is imprecise—for example, the same title could refer to many different songs or to a different song, book, and video—it is limited in its ability to accurately identify a specific file. It is also easy to circumvent metadata searches by, for example, renaming a file, modifying it in a way that affects its size or date, or converting it to another media type.⁵ Hash-based filtering is much more precise, but also easy to circumvent. Commonly used hash functions aim to guarantee that two different files will not have a common hash value. So even slight alterations in the file—for example truncating two seconds of a song, substituting one word in a paragraph, or saving a file as a different file type—will mean the two files have completely different hash values.⁶

Turning to audio and video fingerprinting, there is again the inherent limitation that these tools can only be used to detect potential infringement of audio and video works. But they can attempt to identify content in files that have been altered in simple ways.⁷ However, to accomplish this, the tools have to use fuzzy matching to try to identify that a slightly-modified file is the “same” as the original. This can mean both false positives and false negatives.⁸ As such, tools that seek to detect infringement in music works are more accurate for certain types of music than others.

staydown “would make it impossible for new services to launch and for many existing services . . . to continue to operate”).

⁵ Evan Engstrom & Nick Feamster, *The Limits of Filtering: A Look at the Functionality & Shortcomings of Content Detection Tools* 11-12 (Mar. 2017), available at <https://www.engine.is/the-limits-of-filtering>.

⁶ *Id.* at 12-13; Matthew Sag, *Internet Safe Harbors and the Transformation of Copyright Law*, 93 Notre Dame L. Rev. 499, 545 (2017) (describing hash value for a paragraph, with totally different hash value attributed to paragraph where “banana” was substituted for “DMCA”).

⁷ Engstrom, *supra* note 5, at 14-15.

⁸ *Id.* at 15-17.

Automated detection of infringement has shown substantial failures in classical music.⁹ This is, at least in part, a function of differences in the underlying creative works, because for classical music “the bulk of the repertoire [is] in the public domain, [and] the differences between particular performances are much more subtle.”¹⁰

Finally, as companies scale, and depending on several factors such as the type of user-generated content they host and the volume of allegedly infringing content involved, many will voluntarily develop automated approaches to flag potential infringement. These measures tend to be developed by OSPs that have to manage and respond to larger amounts of claimed infringement.¹¹ For example, some OSPs have developed filtering systems tailored to the needs of their platform, including tools based on machine learning.¹² But even the most sophisticated tools still suffer from the drawbacks I addressed in my written testimony—including inaccuracy, ease of circumvention, limited scope, and high cost.¹³ Currently, computers cannot accurately tell the difference between images of muffins and chihuahuas.¹⁴ For many reasons, including those that have nothing to do with copyright enforcement, many technology companies and OSPs are trying to improve these technologies. For example, as of 2016, YouTube had invested \$60 million to develop ContentID,¹⁵ but in the subsequent two years it invested an additional \$40 million (totaling over \$100 million).¹⁶

⁹ See, e.g., Michael Andor Brodeur, *Copyright Bots and Classical Musicians Are Fighting Online. The Bots are Winning.*, Wash. Post (May 21, 2020), https://www.washingtonpost.com/entertainment/music/copyright-bots-and-classical-musicians-are-fighting-online-the-bots-are-winning/2020/05/20/a11e349c-98ae-11ea-89fd-28fb313d1886_story.html (describing copyright identification algorithms removing live classical music performances performed remotely and online due to COVID-19 pandemic).

¹⁰ Vance R. Koven, *Fair Use of Flickers*, The Boston Musical Intelligencer (May 30, 2020), <https://docs.google.com/document/d/1TG4Pg0iBlcCo3DNB9Iydvehl79ZEJHfdTHj7Jfjo8Yk/edit#>.

¹¹ See, e.g., Jennifer M. Urban et al., *Notice and Takedown: Online Service Provider and Rightsholder Accounts of Everyday Practice*, 64 J. Copyright Soc’y U.S.A. 371, 382-83 (2017) (describing “DMCA-plus” and listing examples of measures adopted by OSPs within this category).

¹² E.g., *id.*, see also, e.g., Advisory Committee on Enforcement, *Role of Intermediaries in IP Enforcement*, World Intellectual Property Organization 2, 9-11, 23 (Aug. 26, 2019), available at https://www.wipo.int/edocs/mdocs/enforcement/en/wipo_ace_14/wipo_ace_14_11_rev.pdf.

¹³ E.g., Rives Testimony at 21-22, Appx. A.

¹⁴ Mariya Yao, *Chihuahua or Muffin? My Search for the Best Computer Vision API*, FreeCodeCamp (Oct. 12, 2017), <https://www.freecodecamp.org/news/chihuahua-or-muffin-my-search-for-the-best-computer-vision-api-cbda4d6b425d/>.

¹⁵ Katherine Oyama, *Continuing to create value while fighting piracy: an update*, Google (Jul 13, 2016), <https://blog.google/outreach-initiatives/public-policy/continuing-to-create-value-while/>.

¹⁶ Paul Sawers, *YouTube: We’ve invested \$100 million in Content ID and paid over \$3 billion to rightsholders*, VentureBeat (Nov. 7, 2018), <https://venturebeat.com/2018/11/07/youtube-weve-invested-100-million-in-content-id-and-paid-over-3-billion-to-rightsholders/>.

b. What incentives, if any, exist for online service providers to invest in developing these technologies?

As above, companies are in the best position to answer this question. But numerous incentives exist. Looking primarily at incentives connected to copyright infringement allegations, the following come to mind.

First, the avoidance of legal liability provides an incentive for OSPs to develop tools to facilitate detection of potentially infringing material online. Even with § 512 safe harbors, rightsholders have long filed suit against OSPs.¹⁷ OSPs have to prove in court that they are entitled to the safe harbors, and even just surviving litigation long enough to establish qualification for the safe harbor can cost more than \$500,000 (and sometimes much more).¹⁸ As such, the threat of protracted, repeated litigation over even a few instances of accused infringement (where damages are up to \$150,000 per work) is a significant incentive. Even an OSP confident in its compliance with all the provisions of § 512, facing threats of litigation, will consider going beyond the current safe harbor qualifications to placate rightsholders threatening suit.

Second, and importantly, OSPs are accountable to the users and creators who rely on them. Many OSPs provide platforms for creative communities and want to help their creators both (a) avoid detrimental improper accusations and (b) avoid infringement of their own works. Developing tools in-house—as it makes sense and if the platform has the resources—can help these OSPs serve their own users and creators.

Likewise, OSPs want to build the platforms and businesses they want to build. An entrepreneur who sets out to create a marketplace for original creations will place those original creations at the center of his or her work. If customers—users, creators, or fans—instead find a platform overrun with infringement and cheap knock-offs, those customers will go to a competitor. As such, some OSPs will use tools and improve access to the platform's core content.

Third, OSPs face public pressure to improve their systems for identifying and removing potentially infringing content. Under notice-and-takedown, third parties can (and do) exercise

¹⁷ See generally, e.g., *Capitol Records LLC v. Vimeo, LLC*, 826 F.3d 78 (2d Cir. 2016); *Ellison v. Robertson*, 357 F.3d 1072 (9th Cir. 2004) (naming AOL as a co-defendant); *In re Aimster Copyright Litigation*, 334 F.3d 643 (7th Cir. 2003); *UMG Recordings, Inc. v. Shelter Capital Partners LLC*, 718 F.3d 1006 (9th Cir. 2013) (original defendant was OSP Veoh, which had declared bankruptcy by the time the litigation concluded & UMG sought to name company's investors as co-defendants); *Viacom Int'l Inc. v. YouTube Inc.*, 676 F.3d 19 (2d Cir. 2012); *Hendrickson v. Amazon.com, Inc.*, 298 F. Supp. 2d 914 (C.D. Cal. 2003); *Columbia Pictures Industries, Inc. v. Fung*, 710 F.3d 1020 (9th Cir. 2013); *Downs v. Oath Inc.*, 385 F. Supp. 3d 298 (S.D.N.Y. 2019) (defendant owns and operates Huffington Post).

¹⁸ It can cost \$500,000 to defend an intermediary liability case through discovery (i.e., to complete discovery, before being able to move for summary judgment that safe harbors apply). Evan Engstrom, *Primer: Value of Section 230*, Engine (Jan. 31, 2019), <https://www.engine.is/news/primer/section230costs> (identifying cost to take intermediary liability case through discovery). Many of the § 512 safe harbor cases are not resolved until summary judgment, or later—after more (sometimes much more) than half a million dollars of litigation costs are incurred.

control over what is removed from the Internet in the name of copyright enforcement.¹⁹ But those third parties are not the face of content removal or the face of kicking off “repeat infringers.” Instead, the OSPs are accused of wrongdoing. Recent examples show how third party DMCA complaints against chef José Andrés and President Donald Trump’s campaign Twitter accounts resulted in Twitter being blamed.²⁰ Of course, all Twitter did was remove content in response to facially valid DMCA notices (even though those notices arguably targeted non-infringing, licensed, or fair uses).²¹ OSPs have that additional incentive, to the extent improved technology can reduce instances of public backlash over suspect takedowns.

Finally, scholars considering incentives in this space have explained why the notice-and-takedown system is preferable, because both OSPs and rightsholders have an incentive to contribute their unique technological know-how, resources, and information toward improving tools.²² Changes which would shrink the current incentives for rightsholders would hurt the overall market for developing this technology. On the other hand, changes which increase the incentives for rightsholders to develop higher quality technology would allow the community to leverage another industry’s strengths to improve technology.

4. Given the difficulties of monitoring online piracy for individual creators and smaller ISPs, should we consider a bifurcated system that treats individual creators and smaller ISPs differently than large studios and platforms? What would be the potential benefits and concerns?

Perhaps, but the devil would be in the details, and there are problems using size as a proxy for ease of compliance with the law. This response lays out some concerns with an approach to treat different-sized companies differently under copyright law. That being said, as in all policy areas, Engine strives to seek solutions and work with lawmakers whenever possible to find approaches that ensure clarity for startups.

First, inherent in the question is the challenge of defining large and small OSPs. Would a small OSP be measured by employee headcount, volume of user-generated content, average daily users, revenue, or something else? The goal of a high-growth startup is to increase, ideally rapidly, in all of these metrics. Imposing new copyright liability and monitoring costs as a company grows could create problematic disincentives against growth.

¹⁹ See, e.g., 17 U.S.C. § 512(c)(1)(C); Rives Testimony at 12-17 (discussing how notice senders can misuse the notice-and-takedown process in ways that remove legitimate content from platforms and improperly designate users as “repeat infringers”).

²⁰ Anna Spiegel, *José Andrés’s Hugely Popular Quarantine Cooking Videos Have Been Removed From Twitter*, Washingtonian (June 17, 2020), <https://www.washingtonian.com/2020/06/17/jose-andres-quarantine-cooking-videos-have-been-removed-from-twitter/>; Matt Schruers, *Claims Against Trump Campaign Video Call for Revisiting Intersection of Speech and Copyright*, DisCo (June 6, 2020), <http://www.project-disco.org/intellectual-property/060620-claims-against-trump-campaign-video-call-for-revisiting-intersection-of-speech-and-copyright/>.

²¹ *Id.*

²² See Husovec *supra* note 3, at 84.

In addition, it can be difficult (if not impossible) for companies to predict their growth, which would make it difficult (or impossible) to know when the new liabilities and monitoring costs would kick in. And much of this growth is outside of a company's immediate control. For example, if an OSP has a piece of content go viral, it might see its average daily user numbers skyrocket for a limited period of time. Without advance notice that it needs to have litigation reserve funding or filtering tools ready, it could suddenly find itself out of compliance with copyright law with no accessible, affordable way to resolve the problem. Likewise, if the average daily user count falls the following month, it could become "small" again, having incurred risk and cost in the interim that are shortly-thereafter moot.

Europe's experience has shown some of the difficulty of delineating a "small" versus "large" OSP. In a half-hearted attempt to address the burdens of its recent copyright directive, the European Union imposed a slightly more limited version of its still onerous—and technically infeasible—content filtering mandates on smaller content providers. But it only partially exempted companies with annual revenue below 10 million Euros, and the exemption only applies to companies available in Europe for less than three years.²³ Even if the limited exemption adequately protected small OSPs from the directive's obligations, it would effectively give a startup a three year runway to become wildly successful before the cost of compliance drove it out of business.

Relatedly, each of these size metrics is not a good proxy for the volume of potential infringement on a platform. An OSP may be large by some standard, because it reaches a large audience and hosts large volumes of content, but can still see very little infringement.²⁴ Alternatively, a small OSP could experience significant infringement, so its size would be irrelevant to whether stopping it would help resolve infringement.²⁵

In addition, many of the same concerns that caution against imposing new costs and risks on startups would remain, even with bifurcation. Investors would still be reluctant to invest if they knew their money could go to cover the cost of platform liability for user infringement.²⁶ As UMG has shown us, rightsholders are willing to sue investors themselves, even if the target company is in compliance with all the § 512 safe harbor provisions.²⁷ Bifurcating the law would not resolve these concerns.

Unfortunately, the Copyright Office recommends a "reasonableness standard" to "right-size"

²³ Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0790#017>.

²⁴ See Rives Testimony at 8-9 (listing OSPs that receive relatively small numbers of takedown notices relative to the amount of content they host).

²⁵ I am not aware of such an OSP, merely use this as a hypothetical.

²⁶ Rives Testimony, Appx. B.

²⁷ *UMG Recordings, Inc. v. Shelter Capital Partners LLC*, 718 F.3d 1006, 1013 (9th Cir. 2003) (referring to UMG's amended complaint to add Veoh's investors as defendants).

§ 512.²⁸ As I discuss in my written testimony, conditioning safe harbor protections on a startup adopting a “reasonable” approach to affirmative monitoring would be unworkable. Such a standard would have to be defined on a case-by-case basis in the courts. Early-stage startups raise an average of \$78,500 during their first year, but proceeding just through discovery in such a lawsuit could exceed \$500,000.²⁹ If it costs more money than a startup has to prove its practices are reasonable, such a safe harbor would have little practical value.³⁰

Section 512 currently treats OSPs the same, regardless of size, the type of content hosted, etc. Much of the case law, to-date, that shapes our understanding of the DMCA was litigated by (now) larger OSPs. Today’s startups have the benefit of following in the footsteps of litigants who took the time and money to seek clarity in the law. If the law that applies to larger companies is no longer the same law that applies to all OSPs, startups and smaller tech companies would have to defend each individual case on their own. Larger OSPs would still be able to afford to adopt enhanced measures and litigate lengthy cases to prove they are doing “enough” under their version of the law, but startups and smaller OSPs would no longer be able to seek certainty and protection within those decisions.

²⁸ *Section 512 of Title 17: A Report of the Register of Copyrights*, United States Copyright Office 124 (May 2020), available at <https://www.copyright.gov/policy/section512/section-512-full-report.pdf>.

²⁹ Evan Engstrom, *Primer: Value of Section 230*, Engine (Jan. 31, 2019), <https://www.engine.is/news/primer/section230costs>; *Startup Funding Infographic*, Fundable, <https://www.fundable.com/learn/resources/infographics/startup-funding-infographic> (last visited May 29, 2020).

³⁰ Rives Testimony at 20, 22; Appx. A.