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Wikimedia Foundation Response to Notification of Inquiry on Standard Technical Measures and Section 512

The Wikimedia Foundation submits these comments in response to the Library of Congress, U.S. Copyright Office (Office) notification of inquiry gathering information on the development and use of standard technical measures (STMs) for the protection and identification of copyrighted works. The Foundation appreciates the opportunity to offer input on some of the questions posed by the notification of inquiry.

The Wikimedia Foundation hosts several projects for free knowledge¹, the most famous of which is Wikipedia. As preface to our comments, the Foundation believes it would be helpful to briefly describe our projects' copyright policies and enforcement practices. Within Foundation-hosted projects, hundreds of thousands of users around the world create free, collective knowledge, and the projects use community-led systems to ensure copyright compliance. One of the requirements for knowledge to be freely available is that it is hosted under a free culture copyright license (our projects primarily use CC BY-SA 3.0² or 4.0³) or in the public domain.

The Wikimedia projects also make exceptions to this free culture requirement on a case by case basis. For example, the community that works on English language Wikipedia has decided to allow fair use images to illustrate articles where no freely licensed image is available, such as for older musical groups and movies. This is reflected in a policy written and voted on by the users themselves⁴.

The Wikimedia projects use a multi-layered system of human review as well as tools that assist human reviewers to ensure the accuracy of copyrighted material and licensing on the projects.

¹ <https://wikimediafoundation.org/our-work/wikimedia-projects/#a1-reference>

² <https://creativecommons.org/licenses/by-sa/3.0/>

³ <https://creativecommons.org/licenses/by-sa/4.0/>

⁴ https://en.wikipedia.org/wiki/Wikipedia:Non-free_content

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As an initial step, many Wikimedia projects have an Upload Wizard (for example, this one is the most common for photographs⁵) that prompts the user to provide licensing information or, if it is their own work, to license it under a Creative Commons license. The Wikimedia Terms of Use also have a more formal content licensing agreement⁶ within them.

Once a work is uploaded, it is typically monitored by other users with the assistance of a variety of tools. The Foundation hosts some tools⁷, which are developed via an open source developer community and used for detecting possible copyrighted materials on the Wikimedia projects. Other tools are hosted on community-created pages⁸ that help users address copyright issues. These tools are employed by the volunteer editors to help them review changes to the Wikimedia projects, and more quickly identify changes that may infringe copyright or violate the free knowledge licensing requirements of the projects.

The Foundation also accepts Digital Millennium Copyright Act (DMCA) requests sent to it directly. Because the user policies and review systems are extremely effective, the number of DMCA notices that the Foundation receives is vastly smaller than the millions received by most hosting providers, and many of these are done in bad faith. For example, our last transparency report⁹ shows that we received only 20 total DMCA notices and granted only 5 of them, indicating that the other 15 were inappropriate or defective in some manner.

Because our overall systems focus on hosting content that is freely available under copyright law, these measures broadly assist in ensuring that Foundation-hosted content is accurately available. At the same time, some of the inaccurate DMCA notices we have received in the past resulted from the use of technical measures finding works on our sites that either falsely asserted ownership or failed to adequately assess fair use, even in clear cases of non-commercial educational use. Takedown demands generated by such tools can be disruptive and confusing for our user communities, and require resources for a legal response that may take away from other methods to advance the Foundation's not-for-profit mission. Therefore, while we do use technical measures that both the Foundation and community editors have found to be appropriate and useful, the use of technical measures inappropriate for our projects can interfere with the exchange of free knowledge and the orderly operation of platforms like Wikipedia.

⁵ https://commons.wikimedia.org/wiki/Commons:Upload_Wizard

⁶ https://foundation.wikimedia.org/wiki/Terms_of_Use/en#7._Licensing_of_Content

⁷ <https://admin.toolforge.org/tools#!/search/copyright>

⁸ https://en.wikipedia.org/wiki/Wikipedia:Copyright_violations#Other_resources

⁹ <https://wikimediafoundation.org/about/transparency/2021-1/>

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With these operating policies and structure as a backdrop, we provide answers to questions 6-11 posed in the notification of inquiry.

6. Availability:(a) Under section 512(i)(2)(B), an STM must also be “available to any person on reasonable and nondiscriminatory terms.” Is this a threshold requirement for a technology to qualify as an STM or an obligation to make a technology available on reasonable and nondiscriminatory terms once it is designated as an STM?

The Wikimedia Foundation believes that availability “to any person on reasonable and nondiscriminatory terms” is a threshold requirement for several reasons.

1. A plain reading of the 512(i)(2)’s text, especially when reading 512(i)(2)(B) with its surrounding context, implies that “availability to any person on reasonable and non-discriminatory terms” (“Availability”) is a requirement innate to the STM, not one that can be corrected after designation.

A. The heading of 512(i)(2) – “Definition” – suggests that any requirements under that heading are inherent, innate qualities the STM needs to have to qualify as an STM.

When Congress defines a term, each element contained in that definition must be met in order for a particular thing to qualify as the defined term. This reading is confirmed by the common understanding of the word “definition”, which multiple dictionaries indicate describes the essential nature and scope of the named term.¹⁰ Congress included “Availability” in the definition of an STM under 512(i)(2); therefore, in order to be an STM, a technical measure must be Available, in and of itself. Technologies that are either proprietary or even licensed semi-exclusively do not fit that definition because they are not “Available” by nature, but technologies that are both “free” (as in libre) and “open source” would often meet this threshold.

Efforts to make proprietary technology available on non-discriminatory terms “after designation as an STM” could be attempted, but the technology’s fundamental nature as an exclusive, discriminatory technology—with all of the baggage that comes from (i) its history, (ii) its source of funding, (iii) the original intent of the developers who architected the software, (iv) the platforms on which the technology works best, (v) the transparency or lack thereof of how the code works, etc. cannot be eliminated simply with more commercially cheap license agreements. Meaningful differences between proprietary technology and nonproprietary

¹⁰ The Merriam-Webster dictionary defines definition as “a statement expressing the essential nature of something. Merriam Webster Dictionary, <https://www.merriam-webster.com/dictionary/definition>. The Oxford English Dictionary defines “definition” as “an exact statement or description of the nature, scope, or meaning of something. <https://www.google.com/search?q=definition+of+definition>.”

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technology in those areas mean they have two different natures and only a significant overhaul of the technology itself (effectively making it into a new technology) would properly make it available on such terms. Again, for comparison: “free and open source” software (which already powers a substantial amount of internet infrastructure) is Available *by its very nature*. This demonstrates that Availability is a completely reasonable threshold requirement.

B. None of the other requirements to be considered an STM under section 512(i)(2) can logically be corrected “once it is designated as an STM.”

The Office’s question asks whether a technology that initially fails the Availability requirement of 512(i)(2)(B) could be designated as an STM and then “corrected” after it is designated to fit the Availability requirement. We believe that no other requirement in 512(i)(2) can be logically read this way, so it would be inappropriate to interpret 512(i)(2)(B) that way.

The logic of every requirement section 512(i)(2) would fall apart should one interpret the requirements in this section as qualities that can be corrected after the fact (once a designation as an STM is being made) rather than inherent characteristics of the technology from inception. In this section, we will briefly describe each requirement in 512(i) to show how none of these requirements would make sense in a way that the requirement can be fixed “after designation.”

The straightforward conclusion that flows out of this analysis is that Congress meant for all of the characteristics described in 512(i)(2) to be threshold qualities or Congress would have written each requirement in the section differently.

Under 512(i)(2), a technical measure needs to be “used by copyright owners to identify or protect copyrighted works.”

This is a threshold requirement because copyright owners would not be interested in a technology in the first place if it has not proven its usefulness to identify or protect copyright works. Said differently, the technology would serve no practical purpose if its “usefulness for identifying copyright works” was a quality that could be corrected “after designation,” because neither platforms, copyright owners, nor Congress would gain anything from designating random, arbitrary technologies as STMs only to attempt to reverse-engineer them into being useful to protect copyrighted works after designation.

Under 512(i)(2)(A), a technical measure needs to have been “developed pursuant to a broad consensus of copyright owners and service providers.”

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This is a threshold requirement because development by a “broad consensus” reflects the negotiation and buy-in process between stakeholders, including copyright owners, online service providers (OSPs), and the public, that Congress believed would create a useful STM. The logic of this requirement falls apart if one argues a technology could be developed “unilaterally” by a third-party without the consultation of “copyright owners” or “service providers” and then designated as an STM but, after its designation, the third party could “correct” its technology to ensure it was—in fact—developed by those stakeholders. Since the STM technology would have already been “developed” without broad consensus, it is not logically possible to read this in a way that allows one to “correct” this after designation without the technology being fully redeveloped from the ground up.

Even more telling is the requirement under 512(i)(2)(A), where a technical measure needs to have been “in an open, fair, voluntary, multi-industry standards process.”

A technology that is developed in a closed, unfair, coercive, unilateral process that is then designated as an STM cannot logically, after the fact, be corrected into one that was created in an open, fair, voluntary, and multilateral manner. Like all the other requirements, Congress meant for the only interpretation of requirements in 512(i)(2) to be inherent threshold characteristics that are innately required before designation as an STM.

Under the final requirement in section 512(i)(2)(C), a technical measure must “not impose substantial costs on service providers or substantial burdens on their systems or networks.”

This may seem to be in theory the kind of requirement that can be corrected “after designation”, but that line of thinking fails in practice. If Congress's intention for 512(i)(2)(C) was to prevent substantial costs and burdens for OSPs, then it would make little sense to designate a costly and burdensome STM, only to then hope that those substantial costs and burdens could be corrected after the fact.

One can imagine a scenario where, after designating a costly and burdensome STM, all efforts by copyright owners and service providers to reduce the substantial costs and burdens “after designation” are fruitless. In that scenario, Congress would have failed its face-value intent, yet the STM designation and precedent would continue to remain in force substantially burdening service providers. Easily predictable scenarios like this make it clear that “not impos[ing] . . . costs . . . or burdens” is a requirement to qualify as an STM, rather than something that can be corrected after the fact.

Most of the requirements in 512(i)(2) fail basic logic tests if read in a way where the required characteristics can be corrected for “once it's designated as an STM.” Reading 512(i)(2)(C) with

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the belief that the characteristics Congress wanted could have been corrected for “after designation” shows how impractical and misguided that thinking is.

For all of these reasons, reading 512(i)(2)(B) to suggest that it is something that can be achieved after designation rather than being a quality of the technology itself seems to either (i) destroy the coherence of the whole section, or (ii) create an arbitrary exception in a section full of characteristics where the same exception, placed anywhere else in the section, would be illogical.

2. Forcing all online service providers (“OSPs”) to adopt a technology that was once proprietary or semi-exclusive creates obvious, practical inequities for any OSP that wasn’t already using the technology before its distinction as an STM.

Congress would not have intended to make Availability something that could be achieved after designation because the inequities between those who had access to the technology before it was Available and those who would gain access to the technology afterwards would be obvious. Proprietary technology created by a technology company for in-house use cannot be made available to others in a truly “non-discriminatory” fashion.

Technology that is Available at its conception (as in free and open-source software) could have audited code where any OSP implementing it could (i) fully understand what all parts of the code did and (ii) be able to remove optional parts of the code that are not necessary for the copyright enforcement function.

(b) How has concern over the potential availability and accessibility of a technology affected the adoption of STMs? What terms would be reasonable and nondiscriminatory for STMs? In what ways would it be possible to enforce these terms?

The Foundation argues that the current lack of technology that meets the Availability requirements is one of the handful of issues at the heart of lack of STM adoption.

The Foundation agrees with the comments that Mozilla submitted to the the Report on Section 512¹¹, which argued that STMs should not be legally mandated, as such a requirement would create “a barrier to market entry for newcomers, reducing innovation and competition with specific risks for small businesses.” Moreover, outside of the “free and open-source” ecosystem, it is unclear how a robust technology that is innately available to “any person”—particularly newcomers into the market—on nondiscriminatory terms could be created.

¹¹ Mozilla, Comments Submitted in Response to U.S. Copyright Office’s Dec. 31, 2015, Notice of Inquiry at 2–3 (Apr. 1, 2016) (“Mozilla Initial Comments”), <https://www.copyright.gov/policy/section512/section-512-full-report.pdf>

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The Foundation believes that any definition of “reasonable and nondiscriminatory” (hereafter, “Reasonable”) should not be arbitrary. Since failure to accommodate STMs creates the existential risk that a platform could lose its safe harbor protection, any interpretation of Reasonable needs to be principled and as predictable as possible.¹² The Foundation argues that the only STMs that would be innately Reasonable would be those that were created from the outset under a free/libre open-source software (FLOSS) license.

Although industry can and does often fund FLOSS development, FLOSS code itself is available for anyone to modify by adding and subtracting functionality without paying a royalty. Both service providers and copyright holders could collaborate on FLOSS projects because FLOSS is inherently built around the collaboration that Congress intended for the creation of STMs. “Any person” has equal access to FLOSS.

This is one of the primary reasons why the Foundation relies on and contributes to the FLOSS community. The Wikimedia Foundation’s vision statement, “Imagine a world in which every single human being can freely share in the sum of all knowledge,” assumes that “any person” must have equal access to both access and contribute to our projects. One important factor in contributing to people’s access is to ensure that the code that underlies our projects is developed as FLOSS.

Since *free/libre* as well as *open-source* have multiple nuanced definitions, the Foundation relies on the Open Source Initiative’s (OSI)¹³ definitions.¹⁴ The OSI has created a flexible but predictable scheme for defining software that is Available by definition. We believe the OSI’s criteria should be adopted to determine what technology is available to “any person,” what is “reasonable” in licensing terms, and what are “nondiscriminatory” license terms. We propose that their definitions should be used as a proxy for reasonableness because OSI is an independent nonprofit that is free from bias, has been successfully working on these definitions for decades, and its definitions provide an expert source to refer to should the definitions ever need to change. Under OSI’s definition of “open source”, technologies must:

- Be freely distributable;

¹² “In enacting section 512, Congress sought to create a balance between two goals. One is providing important legal certainty for OSPs, so that the internet ecosystem can flourish without the threat of the potentially devastating economic impact of liability for copyright infringement as a result of their users’ activity [emphasis added]. The other is protecting the legitimate interests of authors and other rightsholders against the threat of rampant, low-barrier online infringement.” Section 512 Report, 1. <https://www.copyright.gov/policy/section512/section-512-full-report.pdf>.

¹³ <https://opensource.org/osd>

¹⁴ <https://opensource.org/osd>

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- Have accessible source code;
- Preserve the provenance and integrity of the author's source code;
- Allow anyone to make derivative works; and
- Have licenses that are free from discriminatory licensing terms, apply to all, do not restrict other products or software, and are technology neutral.¹⁵

Although there are many characteristics described in the OSI definition, there are dozens of widely used licenses (e.g., Apache License, MIT License, GNU General Public License, Python Software Foundation License, etc.) that already exist and follow every requirement of the definitions above. These are not theoretical, unachievable requirements. In fact, some of the most used software in the world (e.g., Linux, Python, Mozilla Firefox, MediaWiki) already used by a meaningful number of technology companies, use licenses that fit every point within this definition.

The Foundation also believes enforceability could be made more straightforward by adopting the OSI's objective, technical definitions, described above. They are made by technologists who understand licensing standards and are more likely to develop them objectively rather than the owners of online platforms or the media industry lobby, who are potentially more biased.

7. Costs and burdens: Under section 512(i)(2)(C), an STM must not “impose substantial costs on service providers or substantial burdens on their systems or networks.” How should the substantiality of costs and burdens on internet service providers be evaluated? Should this evaluation differ based on variations in providers' sizes and functions?

The Wikimedia Foundation is a nonprofit organization. Our projects are community-created and crowdsourced rather than centrally developed. We are uniquely sensitive to both the economic burdens as well as the burdens on free expression that STMs could create. The Foundation offers a few criteria that should be included in consideration of the substantiality of costs and burdens on OSPs below.

First, the Foundation believes that substantial monetary costs and burdens on OSPs can be at least somewhat mitigated by requiring all STM technologies to be FLOSS at the time of creation, because STMs that are FLOSS are less costly economically.

Second, requirements for passive “accommodation” and “non-interference” as described in the text of the statute will be less costly and burdensome than recent proposals that OSPs should affirmatively adopt certain practices and technology. The text of the DMCA requires

¹⁵ <https://opensource.org/osd>

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accommodation and noninterference. Both of those terms suggest passive acceptance of implemented technical measures (e.g., prohibitions on removing features like digital "locks," "watermarks," "DRM," or "metadata" already inside of the media). Any reading that adds active, affirmative requirements (e.g., a requirement to integrate digital fingerprinting technology) should be considered a misreading that adds significant licensing, implementation, and maintenance costs and burdens that are not part of a passive requirement.

Third, the Foundation argues that the burden to free expression platforms should be considered as part of the calculation of substantial costs and burdens. Since the economic burdens will be discussed by other affected service providers, the Foundation will mostly focus on the noneconomic burdens on society and free expression that should be addressed. The Foundation asserts that technical measures should not be eligible to be considered STMs unless (i) there is clear and convincing evidence that the proposed technical measure will not cause undue harm to free expression or any communication in the public interest, and (ii) the STM will not unreasonably interfere with cybersecurity or privacy measures.

Free expression platforms rely on fair use. Fair use analysis is difficult to automate and free speech about culture often relies on fair use of cultural works. Technical measures are not good at determining when a work was "fairly used" or when a work has entered the public domain. This flaw leads to inappropriate censorship. Even YouTube's Content ID identifies numerous false positives¹⁶ for infringement, and fails to catch a significant amount of problematic content. We worry that such tools would do far worse than the Wikipedia nonfree content policy¹⁷ enforced by users.

Furthermore, STMs developed by industry or by technology licensing companies might contain filtering that goes beyond the level of enforcement of copyright. For example, fingerprinting technology relies on bulk content uploading by content producers and rights management firms. There is no shortage of stories about fingerprinting technology mistakenly flagging public domain media¹⁸ as well as media not protected by copyright because of its wholly factual and/or functional nature, etc. Actors using the technology or creating the technology need not be malicious to create free expression problems for platform users.

Finally, STMs could include problematic privacy-related issues for platforms where privacy is important. Any technology will inevitably contain functionality that is not required for its primary

¹⁶<https://wikimediafoundation.org/news/2018/08/27/can-beethoven-send-takedown-requests-a-first-hand-account-of-one-german-professors-experience-with-overly-broad-upload-filters/>

¹⁷ https://en.wikipedia.org/wiki/Wikipedia:Non-free_content

¹⁸ @NASASpaceflight, Twitter, <https://twitter.com/NASASpaceflight/status/1266002935051403264> (a tweet describing how an automated copyright infringement flagging system owned by NBC flagged and took down a NASA TV clip, which was in the public domain).

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purpose of copyright enforcement. It is reasonable to believe that STMs could be created that perform some level of user tracking.

User privacy is especially important for Wikipedia and other Foundation projects because Wikipedia editors have even been criminally prosecuted for exercising their human right to free expression by editing Wikipedia. Therefore, anonymity and the ability to use our services without being tracked is critical. Our projects could not exist if we have to integrate a technology that incidentally required user tracking.

For these reasons, we strongly believe that burdens on free expression and privacy should be considered when evaluating technical measures' eligibility to be STMs.

Additionally, evaluation of costs and burdens should take into account variations in OSP's' sizes and functions. The Foundation agrees with the Copyright Office's own proposition that "Internet policy in the 21st century cannot be one-size-fits-all. Policymakers must address differences within and among stakeholder classes¹⁹." In particular, evaluation should acknowledge community moderation as an anti-infringement tool.

The Foundation, compared to technology companies with projects of our same size, is a small organization in terms of staff and revenue. Despite this, we support an international team of volunteer community moderators that serve the Wikimedia projects' unique functions.

With inappropriate STM designations, Wikimedia editor communities could be forced to accommodate and implement technical measures to identify and manage copyrighted content that may not be right for Wikimedia projects. This requirement could force the Foundation to change its existing copyright review process, even though the current process is working very well.

Currently, content contributed to Wikimedia projects must be available through a free knowledge license, in the public domain, or subject to some other limitation on copyright protection. The Foundation and our communities rely on Wikimedia editors to figure out whether particular content complies with the rules. These editors do use certain automated technical measures to help them, but the decisions about which measures are appropriate and what content requires action are theirs.

Of course, the Foundation accepts requests to remove content under the DMCA. Because the user policies and review systems are extremely effective, the number of DMCA takedown

¹⁹ Section 512 Report, 2. <https://www.copyright.gov/policy/section512/section-512-full-report.pdf>

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notices the Foundation receives is very small, and many are not granted. For example, our most recent transparency report²⁰ shows we received only 20 total DMCA notices between January and July 2021 (as compared²¹ to the nearly 150,000 received by Facebook). We granted only 5 of them, which means that the other 15 were inappropriate or defective in some manner.

If the Office fails to take the effectiveness of the OSP's current practices—particularly community moderation—into account, Wikimedia projects could be forced to use inappropriate tools or to substitute our existing copyright enforcement process for inappropriate tools. We are concerned that this will make our copyright enforcement worse.

8. Internet service provider responsibilities: What actions does this standard require service providers to take or to affirmatively avoid taking? Must all internet service providers have the same obligations for every STM? What obstacles might prevent service providers from accommodating STMs? What could ameliorate such obstacles? “accommodate[] and [] not interfere”

9. Definition: How could the existing definition of STMs in section 512 of Title 17 be improved?

10. Obligations: Currently, section 512(i)(1) conditions the safe harbors established in section 512 on an internet service provider accommodating and not interfering with STMs.

(a) Is the loss of the section 512 safe harbors an appropriate remedy for interfering with or failing to accommodate STMs? If not, what would be an appropriate remedy?

(b) Are there other obligations concerning STMs that ought to be required of internet service providers?

The following text should be considered responsive to questions 8-10 (reproduced above) posed by the Notification of Inquiry.

Section 512 of the DMCA requires that service providers “accommodate and not interfere” with “standard technical measures” used by “copyright owners to identify or protect copyrighted works.” The current language of this section preserves an important balance encompassed throughout the DMCA between ease of enforcement for copyright owners and undue burdens on platforms.

²⁰ <https://wikimediafoundation.org/about/transparency/2021-1/>

²¹ <https://transparency.fb.com/data/intellectual-property/notice-and-takedown/facebook/>

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Perhaps because §512 already includes a notice and takedown provision, this balance intentionally limits the development of STMs to a small category of tools. This is supported by the numerous safeguards placed on STMs in the “Definition” section of §512 (i). In particular, the requirements that STMs be “available to any person on reasonable and nondiscriminatory terms” and “do not impose substantial costs . . . or burdens on their systems or networks,” indicate that Congress understood that imposing positive obligations with regard to technology on all entities considered a “service provider” under the DMCA could impose a substantial barrier to platform operations for many smaller and less well-resourced platforms. Furthermore, even the language of “accommodation,” rather than “adoption,” seems to indicate that STMs were not envisioned to be broadly adopted on the platform side to preempt copyright infringement, but to be another tool for copyright owners to enforce their rights.

We believe that this balance is operating as intended. Although it is true that very few, if any, STMs have been identified by courts to this date, we believe this appropriate given the high burdens technical accommodations can place on platforms. This law was written without particular measures in mind, assuming technology would continue to evolve in the field of copyright protection. Technology has continued to evolve, but in the realm of copyright enforcement, has not converged into any meaningful universal standard that can meet the safeguards contained in §512 (i). That process does not need to be hurried. Plenty of voluntary online standards—e.g., [standard relating to website accessibility](#)—have been developed and agreed to by platforms of all sizes. The remaining debate with regard to STMs for copyright enforcement may simply mean that the complicated process of copyright enforcement is not yet ripe for the development of STMs. This does not preclude their development in the future, particularly if greater development of tools occurs outside of platforms.

Due to the nature and variety of platforms on the internet, ranging from community-governed public interest platforms to commercial social media sites, there are a number of obstacles²² that make it very difficult for STMs to meet the standards laid out in §512 (i). Often suggestions for STMs include technology that can be employed by platforms to better search for copyright infringement. However, development of such technology can cost a significant amount of money and time for these platforms. Furthermore, because certain platforms have a profit-sharing model with creators that depends on identification of copyrighted content, the platforms which develop these technologies may actually have a business interest in keeping such technology proprietary. This means it cannot be available on a nondiscriminatory and reasonable basis and often is replaced by less effective, expensive imitations. In addition, an early adoption of an

²² See generally Lauren G. Gallo, *The (Im)possibility of “Standard Technical Measures” for UGC Websites*, 34(2) Colum. J. L. Arts 283 (2011) (discussing the impracticality, and improbability, of defining STMs under § 512).

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imperfect standard can lead to locking in outdated technology even after better standards have been developed, and platforms with fewer resources may not be able to update the technical measures they use as technology improves.

Most important to Wikimedia projects, however, is the potential for STMs to interfere with platform governance and content moderation. Wikipedia and other Wikimedia projects are governed by the Wikimedia community, hundreds of thousands of volunteer editors around the world who collaboratively create and enforce rules for the community, including rules about content. Thus, much of Wikimedia content moderation, including copyright enforcement, is done by volunteers who are able to identify and remove copyright violations from the projects before they are even brought to the attention of the Foundation. Models like Wikipedia are threatened when specific technology is mandated for use by platforms because that technology preempts or complicates existing successful mechanisms of community-led enforcement.

Because these safeguards are largely working as they should, there is little that can be done to ameliorate the particular obstacles presented by the diversity of platforms on the internet. Efforts should continue to be made to evaluate potential STMs, with a focus on solutions that can be employed by copyright owners rather than platform-side technologies. These solutions must balance the interests of platforms and copyright owners as established in §512, but another vital interest that must be represented when discussing copyright enforcement on platforms is that of internet users. If the interest of users is not represented in the development of STMs, there is greater potential that the balance struck between ease of copyright enforcement and avoidance of undue burdens on platforms will fail to uphold users' interests in free expression.

The safeguards on the development of STMs are strict because of the severity of the penalty should they not be accommodated. Because platforms can lose their safe harbor immunity based on a failure to accommodate STMs, it is important that this immunity not be lost simply because a platform lacks the resources to comply with certain mandated technologies. If the definition of STMs changes to encompass a broader range of technologies, with fewer safeguards, then the penalty must be changed accordingly to something less damaging than the loss of safe harbor protections.

Finally, perhaps there should be even more safeguards on the use of STMs by copyright owners. Even now, the use of automated services to send notices of DMCA infringement means a proliferation of incomplete or bad faith notifications, which does little to eliminate infringement, but does require significant resources from both copyright owners and platforms. As with any notification, copyright owners should ensure that they are engaging in good faith when using technical measures, particularly any technical measures that automatically detect and report copyright violations. This includes consideration for concepts like fair use when identifying

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copyrighted works as well as engaging in human review of potential detected copyright violations. Together, these help ensure that freedom of expression is protected in the process of copyright enforcement.

11. Adoption through rulemaking:

(a) What role could a rulemaking play in identifying STMs for adoption under 512(i)?

The Foundation agrees that technical measures to identify potentially infringing works can be useful in some circumstances, and some are used on our projects at this time. However, we have strong reservations about mandating the use of certain technical measures for copyright enforcement by platforms and about the required accommodation of certain tools. Online platforms should be free to use the processes and technical measures that are most appropriate for their individual formats and communities. We are concerned that instituting a formal process to mandate which technical measures platforms must use or accommodate will lead to censorship of legal content. It could also force the Foundation to make changes to the existing community-led copyright enforcement process that will disempower the communities that create and maintain the Wikimedia projects and make copyright enforcement less efficient across all projects.

In our view, the government should not mandate which technical measures should be considered to be STMs under the DMCA. Presumably, the Office is asking what role a rulemaking could play in the context of STMs in order to identify or facilitate the identification of STMs that platforms would then be required to accommodate or implement.

In the Foundation's view, setting aside our substantive concerns with the outcome of a rulemaking, we believe a rulemaking to identify STMs would present a number of practical problems that will be difficult, if not impossible, to overcome should such a process be used to try to identify a STM under the DMCA.

First, the very question of what qualifies as a STM is exceedingly complex. The Office notes that the language of Section 512(i) offers only "minimal guidance on the types of technologies that could qualify as an STM." And, therefore, it would be "essential" for further discussions to evaluate individual technologies and potential terms to include technologists from the relevant industries, representatives from stakeholder groups that perform roles related to the identification and implementation of any technical measures, and representation from all constituencies that could be impacted. The rulemaking process is simply not conducive to identifying the wide range of technical measures that might be appropriate for the ever-increasing types of content and online platforms that exist online. Some technical measures might work for identifying music, others for video, others for still images, and yet

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others for text. Some platforms might primarily host video content, but occasionally have music or text included in the videos. Some platforms, like Wikimedia Commons, might primarily host still images, but may occasionally encounter other types of content. The sheer number of different permutations of user-generated content that could appear on online platforms of many different sizes and primary purposes is mind-boggling.

A rulemaking process controlled and governed by one federal agency will be overwhelmed by the realities of the market it faces. There are so many different sectors, business models, types and management of both user-generated and platform-generated content, and disparate technical subject matter at issue that it is difficult to see how one rulemaking, or even a series of rulemakings, could meaningfully address each open question and resolve it. It could easily result in a “one-size-fits-all” solution. Requiring one-size-fits-all measures could upset the delicate balance between encouraging free expression and allowing for vigorous enforcement of intellectual property rights that has emerged since the passage of the DMCA.

Second, rulemaking processes do not operate at the speed of technological and industry development. Platforms that are stakeholders at the outset of such a rulemaking process may not exist or may be acquired by another entity by the end of the process, making it difficult to ensure meaningful consultation.

Third, and related to the previous concerns, a rulemaking process, or even a series of rulemaking processes, will be unlikely to gather input from a large enough variety of stakeholders to create a full picture of the environments into which technical measures will be introduced. To be sure, large rightsholder and large platforms will have the capacity to weigh in at every opportunity, but smaller platforms and individual rightsholders may lack the capacity to participate as fully as would be necessary to gather all of their relevant viewpoints—if they are able to participate at all. We are also concerned that members of the public whose speech and creative work will be most impacted by the use of these tools may not be aware of the rulemaking process or may not recognize its implications for their speech online and, hence, may not be able to participate in the process at all.

Finally, rulemakings inherently are not driven by consensus of the stakeholders. Rather, they are governed by the decisionmaking authority that Congress grants the particular agency engaged in the process. Situating any process for identifying STMs within a rulemaking process will, therefore, likely give too much power to the government to decide which technical measures should be used by which rightsholders and which platforms and when. Vesting this power with a government agency also will take too much power away from rightsholders, platforms, and other stakeholders to arrive at those conclusions for themselves.

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(b) What entity or entities would be best positioned to administer such a rulemaking?

Substantive, technical rulemakings require industry-specific knowledge about new and emerging technology and the related industries. Given the tremendous variety of platforms, technical measures, and types of copyrighted content, it is unlikely that any one agency will be able to substitute its judgment for a consensus-driven process. This fact strengthens our concerns about the use of a rulemaking process to identify STMs and the impacts their adoption through this process could have on free expression.

(c) What factors should be considered when conducting such a rulemaking, and how should they be weighted?

At a minimum, a rulemaking should consider the size of various OSP's; their business models (e.g., whether they are for-profit or not-for-profit); the types of content they primarily host; how they currently identify and manage copyrighted content and cases of potential infringement; whether there is community involvement in the management and moderation of content; the potential error rates of the proposed technical measures; the burden on free expression; any concerns about privacy invasions;; whether an OSP will be incentivized to simply remove content flagged as infringing by a particular technical measure without considering possible mitigating factors such as fair use or if the work has entered the public domain; the monetary costs of the implementation or accommodation of the technical measure; what types of content the technical measure is best suited to identify; whether technical measures are Available; and, whether the public has had sufficient opportunity to offer input in the proceeding.

(d) What should be the frequency of such a rulemaking?

As noted earlier, the technology and industry are dynamic and rapidly changing and developing. If there is to be an official government process to identify STMs, it should be as dynamic as the platforms and technologies that the process seeks to impact. Rulemaking is a relatively static process, conforming to specific rules and timelines that do not permit iterative decisionmaking based on stakeholder input and collective judgment. Moreover, simply holding frequent rulemakings will be unlikely to solve the problem of a lack of opportunity to engage in consensus-building, because smaller stakeholders are unlikely to be able to fully participate across a sustained time period, thereby weakening the ability of rulemakings to account over time for the broad variety of platform and technical tool needs.

(e) What would be the benefits of such a rulemaking? What would be the drawbacks of such a rulemaking?

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The Foundation acknowledges that, though the DMCA was enacted more than twenty years ago, a STM has yet to be identified. Indeed, a suitable process for identifying a STM has yet to emerge. The benefit of a rulemaking might be to provide a clear process to identify such a STM should one currently exist.

However, as noted above, a rulemaking process does not align with the current statutory requirement that STMs be selected by broad consensus. Further, large rightsholders and large platforms are likely to dominate any rulemaking process, given their resources and the participation of their numerous industry groups in addition to their individual efforts. This outsized participation is likely to drown out the voices of smaller platforms, nonprofit platforms, the creative community, and the public that rely on free knowledge to flourish. For the Foundation and the communities that power our projects, these concerns are existential. If the Foundation and our communities lack the capacity to offer our perspective into each stage of each rulemaking process or, worse, our perspectives are discounted because large stakeholders' voices are simply louder, our communities and projects may be forced to implement or accommodate technical measures that are inappropriate for use on our projects, likely leading to unwarranted censorship and harming our ability to share free knowledge with the world.

Conclusion

The Wikimedia Foundation appreciates the opportunity to provide answers to these questions. We look forward to continued engagement with the Office as its consideration of STMs moves forward. If you have further questions regarding any of the information or answers provided above, please reach out to Kate Ruane, Lead US Public Policy Specialist for the Wikimedia Foundation, kruane@wikimedia.org.

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