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

Responses of Jonathan Band to Chairman Tillis's Questions for the Record

1. **How did the advent of the internet impact copyright infringement in the 1990s? What did online copyright infringement look like in the 1990s when the DMCA was enacted? And how does the infringement of the dial-up internet era compare to infringements taking place today?**

The internet has far more users and websites now than in the 1990s, so it stands to reason that there is more infringement than 22 years ago. However, it has always been difficult to measure the impact of this infringement on sales of copyrighted works. In other words, it has been difficult to determine the actual substitution rate of infringing works. It appears that file sharing services such as Napster and Grokster did have an adverse impact on the recorded music industry. Most content industries have adjusted their business models towards streaming to take advantage of the low distribution costs and enormous audiences of the internet while minimizing the risk of infringement. It appears that most of the websites which make infringing content available are located offshore, beyond the reach of U.S. law.

2. **What was the historical context for the enactment of the DMCA? What were the key issues, legal decisions, agreements, and other activities it sought to address?**

The impetus for the safe harbors was the unclear case law in the mid-1990s concerning the copyright liability of providers of Internet services for the actions of their subscribers. Inconsistent decisions such as *Playboy Enters., Inc. v. Frena,* F. Supp. 1552 (M.D. Fla. 1993); *Religious Tech. Center v. Netcom On-Line Comm. Serv., Inc*., 907 F. Supp. 1361 (N.D. Cal 1995); and *Sega Enters. Ltd. v. Maphia*, 948 F. Supp. 923 (N.D. Cal. 1996), engendered legal uncertainty. The inconsistent and ambiguous decisions flowed in large measure from the fact that secondary copyright liability is entirely judge-made. As large telecommunications companies such as Bell Atlantic (which later become Verizon) began to invest significant resources in providing broadband services, they sought greater clarity concerning their liability. Providers of other Internet services, such as Netscape (developer of the Internet browser Navigator), also sought clear rules of the road.

The stakeholders decided in large measure to reject *Frena* and codify *Netcom*. Mere conduits would not be liable for damages with respect to transmissions initiated by the user, when the transmissions were carried out through an automatic technical process. Hosting and linking services that had no actual or red-flag knowledge of the infringing activity could limit their liability by complying with takedown notices sent by content providers. Content providers also benefited from this arrangement by receiving automatic injunctions by just sending a notice.

The impetus for the anti-circumvention provisions was a belief that a legal prohibition on the circumvention of technological protection measures ("TPMs"), and on the trafficking of circumvention devices, would prevent infringing activity on digital networks. At the time, there

was no evidence to support this belief, and there still is none. The fact that TPMs support streaming business models does not prove that legal prohibitions on the circumvention of TPMs are necessary or effective. Indeed, circumvention technologies are widely available on the internet.

In the 104th Congress, the legislation focused on the circumvention of copy protection technologies. In the 105th Congress, after the WIPO Diplomatic Conference where the WIPO Copyright and Performances and Phonograms Treaties were adopted, the Clinton Administration advocated broader legislation addressing the circumvention of access protection and copy protection technologies.

Both bills were stalled until Chairman Hatch bundled them together into one bill. In effect, he informed the content industry that if they wanted the TPM legislation, they would have to agree to the safe harbors. They agreed to that deal.

3. **When it passed the DMCA Congress envisioned copyright owners and ISPs/platforms working together and reaching voluntary agreements on issues such as standard technical measures. Yet, twenty years later, very few—if any—effective voluntary agreements have been reached and there are no approved standard technical measures under 512(i). Why is that? Is it because ISPs/platforms are comfortable with the current system and have little incentive to meet copyright owners halfway?**

In section 512, Congress envisioned a regime of shared responsibility for addressing the problem of online piracy. This is exactly what developed. Content providers notify access providers of infringing subscribers, and the access providers terminate the accounts of alleged repeat infringers. Similarly, the content providers notify providers of hosting and information location services of infringing material, and the service providers take that material down. Many service providers facilitate the content providers' search for infringing material on their services, and have automated the notice and takedown process. (This automation, while efficient for content providers and service providers, does lead to a high rate of unwarranted takedowns.) Service providers also use technologies that enable content providers to either block unauthorized content or monetize it. Moreover, content providers and service providers have entered into licensing arrangements to distribute content lawfully at low cost to offer consumers a convenient and affordable alternative to infringing material.

Furthermore, other players in the internet environment have also entered into voluntary arrangements with content providers. Under the leadership of the Intellectual Property Enforcement Coordinator ("IPEC"), ad networks and payments systems have developed protocols for withholding services from websites engaged in infringing conduct.

As a condition for eligibility for the section 512 safe harbors, section 512(i) requires service providers to "accommodate[] and not interfere with standard technical measures" that identify or protect copyrighted works. The concern was that service providers might strip digital rights management ("DRM") information or TPMs as content flowed through the internet. To my knowledge, this has not been a serious problem, so the content providers have not had an incentive to pursue standard technical measures.

4. **The DMCA, and more specifically Section 512's safe harbor provisions, were drafted in a way to allow pioneering internet platforms and services to innovate and grow without the constant threat of liability for the third-party content uploaded to their websites or using their services. Twenty-plus years later, internet platforms that grew up under these safe harbors have become some of the most powerful and wealthy entities in the world, and they have created business models based on their ability to monetize the content of others while turning a blind eye to infringement. Given this change of circumstances, do you think these companies ought to play a more proactive role in combating online infringement and assume more accountability for the misappropriation facilitated by their services?**

I disagree with the premise of this question. Platforms do not turn a blind eye to infringement; they respond expeditiously to takedown notices and often use technology to prevent unauthorized content from being uploaded. When courts conclude that service providers have turned a blind eye, they get punished, as evidenced by the recent billion-dollar judgment against Cox Communications.

Furthermore, the vast majority of the content hosted by platforms, and linked to by search engines, is authorized. The advertising-based business models employed by the platforms allow both content creators and users (who now are one and the same) to distribute and receive vast amounts of lawful information for no cost beyond the fee they pay for internet access.

Any changes to the structure of the section 512 safe harbors will have an adverse impact on small and mid-sized platforms without having any discernable impact on online infringement. In particular, changes to section 512 limit could the ability of libraries and educational institutions to provide online services.

5. **What are some of the practical challenges posed by the digital age that were unforeseen when the DMCA was enacted?**

The challenges posed by the digital age were foreseen; Congress, unfortunately, did not always listen. This certainly was the case with section 1201. We warned Congress that it would have an adverse impact on lawful uses, and that the triennial rulemaking was inadequate (but certainly better than nothing). Nonetheless, Congress proceeded to ban circumvention (and circumvention devices) without a nexus to infringement. The cellphone unlocking debacle was the result. One can anticipate similar problems in the future.

6. **In order to better understand the various parties who participated in the DMCA legislative process, can you give us a sense of who the government and non-government participants were? Did individual creators or small businesses have a voice in the proceedings?**

The Patent and Trademark Office under Commissioner Bruce Lehman played a central role in the development of the DMCA, first with its Green and White Papers, and later with proposed legislative language. The Copyright Office supported the PTO's efforts. In the Senate, Judiciary

Chairman Orrin Hatch and Ranking Member Patrick Leahy steered the process. Senator John Ashcroft played an extremely helpful role in improving the DMCA (particularly his aide Paul Clement).

In the House, IP Subcommittee Chairman Howard Coble and Ranking Member Howard Berman were central figures. Congressman Bob Goodlatte was very involved with the safe harbor negotiations. The IP subcommittee chief counsel was Mitch Glazier, now CEO of the Recording Industry Association of America. Congressman Rick Boucher and Tom Campbell joined with Senator Ashcroft to propose an alternative bill regarding TPMs, which would prohibit only acts of circumvention that facilitated infringement. The House Energy and Commerce Committee, under Chairman Tom Bliley, also entered the fray, particularly with respect to section 1201. The E&C Committee added the triennial rulemaking.

Section 1201 followed a top-down approach. The legislation was first proposed by the PTO, then refined by Congress. Once it was clear that structural changes were impossible, those concerned with the breadth of the prohibitions were forced to seek exceptions. Senator Ashcroft became a champion of these efforts. Although the many groups seeking amendments to section 1201 worked together in the Digital Future Coalition, ultimately the exceptions adopted reflected the lobbying strength of groups seeking specific exceptions, *i.e.*, the interoperable software developers obtained the interoperability exception, section 1201(f); and the consumer electronics manufacturers obtained the no mandate language in section 1201(c)(3) and the "Macrovision" exception in section 1201(k).

My impression is that the section 512 safe harbors resulted from negotiations among affected parties. The large telecommunications and content providers were at the table. But I was not in the room so I don't know exactly who else was.

7. My understanding is that when the DMCA was enacted, the online platforms proposed a system in which they would simply have to take down infringing files in response to notices from rightsholders. Why was that system rejected by Congress?

The counter-notice procedure was added to protect users; the notice-and-takedown system originally took account only of the content providers and the service providers. My recollection is that Senator Ashcroft played in a pivotal role in the development of the counter-notice procedure.

8. In order for service providers to avail themselves of safe harbor protection, the DMCA established a duty to remove infringing content even without the input from copyright owners when they have actual or red flag knowledge of infringement. Do you believe that service providers have held up their end of the bargain and investigated infringing activity when they have red flag knowledge? Has case law supported the intent of congress in incentivizing service providers to be proactive when red flag knowledge exists?

A service provider cannot avail itself of the safe harbor with respect to any infringement for which it has red-flag knowledge. Thus, the service provider must be proactive with respect to

infringing content concerning which it has red-flag knowledge. In fashioning the red-flag knowledge standard, Congress sought to create an intermediate standard between actual knowledge and constructive knowledge. This inevitably is a highly fact-specific inquiry. The courts have faithfully applied the standard in a reasonable manner, taking into account the unique circumstances facing the service provider. As Professor Tushnet explained, in *Viacom v. YouTube*, Viacom employees uploaded content to YouTube in an effort to launch a viral marketing campaign. In *Perfect 10 v. CCBill*, the court recognized that the label "stolen" had little significance given that the pornography industry creates the illusion of illicitness to help sell its product.

9. In seeking provisions in the DMCA that would minimize their exposure to liability, ISPs likened themselves to common carriers in the telecom industry who enjoyed broad immunities from responsibility for the actions of their customers because they served as a mere conduit or utility. Do you believe that this comparison between ISPs and telecom providers was appropriate 22 years ago? What about now?

The comparison of internet access providers to common carriers is even more appropriate now than it was 22 years ago. Internet access is critical to most Americans' ability to communicate with friends and family; purchase essential items; apply for jobs; perform work; and obtain an education.[1] The volume of content that flows through the internet's "pipes" is vastly more now than 22 years ago. Increasing the liability of internet access providers would invariably increase the cost of internet service, while decreasing its efficiency. Conversely, the actual benefits to copyright owners are completely speculative. Moreover, Americans are more concerned about their privacy online than 22 years ago. They don't want ISPs monitoring their communications looking for infringing material.

10. Trademark law does not contain safe harbor provisions, and yet internal notice and takedown mechanism have been implemented among platforms that often deal with infringing and counterfeit materials. Shouldn't platforms be just as willing to take voluntary action to monitor and combat copyright infringement?

Platforms are taking voluntary actions to combat copyright infringement.

11. Projects such as the Google Transparency Report have tracked the extreme volume—75 million in February 2019 alone—of DMCA-related take down notices received. Are these astonishing numbers evidence of a system working efficiently and effectively?

This volume is a function of a number of factors: the automation of the process; people sending notices to Google on the assumption that Google is indexing the infringing content, even if it is not; governments and corporations realizing they can use the DMCA process to censor legitimate speech; and the enormity of the internet and Google's index. While 75 million takedown notices may seem like a large number, it is a tiny fraction of the content available on the internet.

[1] *See Packingham v. North Carolina*, 582 U.S. __ (2017).

At the same time, this volume of automated notices indicates that fair use is not considered before notices are sent, which in turn indicates that far more content is being removed than should be.

12. Do you believe ISPs are doing enough to educate users on copyright infringement and the related harms? If not, what more could be done?

I do not believe it is the role of ISPs to educate users on their legal obligations. No other product or service providers are required to educate their users concerning their legal obligations. And if Congress were to mandate education by ISPs, there are many topics that need to be taught before copyright law, *e.g.*, media literacy, cybersecurity, and internet bullying.

13. Congress recognized at the time of the DMCA's enactment that the only thing that remains constant is change and that the enactment of the DMCA was only the beginning of an ongoing evaluation by Congress on the relationship between technological change and U.S. copyright law. Given how drastically technology, the internet, and our online existence has changed and evolved over the past twenty-five years, what changes or solutions would you suggest to deal with the changed circumstances?

Ideally, section 1201 should be amended to prohibit circumvention activities only with a nexus to infringement. Alternatively, section 1201 should not apply to software embedded in hardware products that cannot be disseminated via digital networks. Software is now incorporated into a wide range of products, and the section 1201 prohibition on circumvention restricts competition, maintenance, and repair. This means that the Copyright Office, through the triennial rulemaking, has power over vast swaths of the economy. The rulemaking should apply to circumvention tools (i.e., sections 1201(a)(2) and (2)), not just acts of circumvention (section 1201(a)(1)). The standards for granting an exemption should be clarified, and if an exemption is (or has been) granted twice, it should become permanent.

14. The Copyright Office is on the verge of releasing its much anticipated 512 report. What do you think are the most important issues the report should address and what would you like to see the report propose concerning these issues?

In general, I believe that section 512 is functioning well. Because people do abuse the notice-and-takedown procedure, the standards for combatting misrepresentations in section 512(f) need to be loosened. The "knowingly materially misrepresents" standard is too stringent; it should be lowered to knowingly misrepresents. Further, actual damages are an insufficient remedy because they do not create a deterrent to misrepresentations. Accordingly, statutory damages should be available under section 512(f). Additionally, there is absolutely no reason for the Copyright Office to maintain a directory of the agents designated to receive notices of claimed infringements. The filing fees are onerous, and there is no evidence that content providers rely on the directory. All the information contained in the directory can be found on the services providers' website. Thus, section 512(c)(2) should be amended to eliminate the Copyright Office directory.

At a more general level, as I indicated in my testimony, Title I, dealing with TPMs, and Title II, dealing with safe harbors, were enacted together to create a balanced approach to copyright enforcement in the Internet environment. Thus, the effectiveness—and fairness—of the safe harbor system should not be considered in isolation, but in relation to the effectiveness and fairness of the TPM provisions. Hopefully the Copyright Office will view section 512 in this broader context.

Indeed, both the Copyright Office and this Subcommittee should view the questions of copyright and the internet through the widest possible lens. The question is not whether some individuals, or even some industries, are disadvantaged by online infringement, and could be benefited by imposing greater burdens on service providers. Rather, the question should be whether the goals of the copyright system—promoting the creation and distribution of works for the public benefit—would be best served by recalibrating the balances established in the DMCA.

In my view, this is not even a close call. The amount of information I can access from my home, my office, or when I am on the road, whether for work or for entertainment, is astounding.[2] Much of this information, posted with the authorization of the copyright owner, is free. Similarly, my blog-posts on copyright matters can be read by a (small) global audience. If the safe harbors limiting the copyright liability of the websites hosting this content were contracted, then the internet could not be as open. Web hosts would only make available material from trusted sources, or would have to impose higher fees. Resources such as Wikipedia might disappear or greatly diminish. At the same time, it is entirely speculative whether changing the safe harbors would actually benefit copyright owners economically.

March 3, 2020

[2] *See* Techdirt, *The Sky Is Rising*, https://skyisrising.com/.

The Digital Millennium Copyright Act at 22:
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Responses of Jonathan Band to Senator Coons' Questions for the Record

1. **What aspects of the DMCA were the most difficult to negotiate and why? Does anything surprise you about how those provisions have been interpreted and applied over the past 22 years? Do you have any advice for those considering future DMCA reforms?**

I spent four years lobbying Congress to make sure that any circumvention prohibition did not interfere with software interoperability. These efforts resulted in 17 U.S.C. § 1201(f). What was particularly frustrating about this effort was that the EU Software Directive, which introduced the concept of prohibiting the circumvention of technological protection measures ("TPMs"), contained an exception that permitted circumvention for the purpose of achieving interoperability. In other words, I spent four years to get an exception here that the EU had all along.

It was difficult to get the exception because the content providers objected to any exceptions to the TPM provision. For some, it was a matter of principle; no one should be allowed to circumvent a TPM without authorization. For others, they feared that any exception, no matter how legitimate, would open the floodgates to other exceptions.

Additionally, in 1994, some software companies were still questioning the lawfulness of software reverse engineering for the purpose of achieving interoperability. By 1998, that opposition diminished because of case law and industry developments.

I thought section 1201(f) was unambiguous, so I initially was surprised when the Eighth Circuit misunderstood it in *Davidson v. Jung*, 422 F.3d 630 (8th Cir. 2005). Similarly, the Copyright Office misapplied section 1201(f) in several of the triennial rulemakings, but interpreted it correctly in the most recent rulemaking. Section 1201 is extremely complicated, and applies to complex technology. Thus, it really is not surprising that decision-makers misapply it.

My advice for those considering future DMCA reforms is not to attempt them. The DMCA generally works, and the basic balance it achieved remains intact. A DMCA reform effort would be extremely contentious and time consuming, and likely would not have a demonstrable impact on online infringement.

2. **The Senate Judiciary Committee's 1998 report on the 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." We are told that no meaningful cooperative effort took place. Why is that?**

To the contrary, many service providers and content providers have cooperated on a wide range of solutions to the problem of online infringement. Many service providers facilitate the content providers' search for infringing material on their services, and have automated the notice and takedown process. (This automation, while efficient for content providers and service providers, does lead to a high rate of unwarranted takedowns.) Service providers also use technologies that enable content providers to either block unauthorized content or monetize it. Moreover, content providers and service providers have entered into licensing arrangements to distribute content lawfully at low cost to offer consumers a convenient and affordable alternative to infringing material. These new business models relying on new technologies such as streaming have led to an explosion of creativity that benefits content industries, service providers, and consumers.

As a condition for eligibility for the section 512 safe harbors, section 512(i) requires service providers to "accommodate[] and not interfere with standard technical measures" that identify or protect copyrighted works. The concern was that service providers might strip digital rights management ("DRM") information or TPMs as content flowed through the internet. To my knowledge, this has not been a serious problem, so the content providers have not had an incentive to pursue standard technical measures through a multi-industry standards process.

3. The internet and digital content distribution mechanisms have changed drastically in the past 22 years. What technological and practical challenges exist today that you did not foresee during the drafting of the DMCA?

The challenges posed by the digital age were foreseen; Congress, unfortunately, did not always listen. This certainly was the case with section 1201. We warned Congress that it would have an adverse impact on lawful uses, and that the triennial rulemaking was inadequate (but certainly better than nothing). Nonetheless, Congress proceeded to ban circumvention (and circumvention devices) without a nexus to infringement. The cellphone unlocking debacle was the result. One can anticipate similar problems in the future.

4. Judge Damich testified that Senator Hatch rejected notice-and-takedown as the sole copyright responsibility on the part of service providers. What additional service provider responsibilities were enacted as part of the DMCA?

Other service provider responsibilities included terminating the accounts of subscribers who were repeat infringers; and accommodating and not interfering with standard technical measures. Moreover, a service provider could remain eligible for the safe harbors only if it responded proactively when it obtained actual or red-flag knowledge of infringing activity. Finally, service providers must comply with the notice-and-putback system to avoid damages liability to users.

5. Professors Litman and Tushnet raise concerns regarding Section 1201's anti-circumvention provisions for their lack of copyright infringement nexus. Why was Section 1201 drafted more broadly to encompass circumvention of technical protection measures for other purposes, along with statutory exceptions and a triennial rulemaking process?

Section 1201 was drafted so broadly because the content providers argued that it would be too easy for a circumvention device manufacturer to assert that the device was intended to facilitate lawful uses, when it really wasn't. Moreover, even if the manufacturer truly intended that the device be used only for lawful purposes, the manufacturer would not be able to control how the

device actually was used after distribution. In other words, the content providers argued that it was better for the prohibition to be over-inclusive than under-inclusive.

March 3, 2020

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Responses of Jonathan Band to Senator Hirono's Questions for the Record

1. **With the outsize role the Internet plays in all of our daily lives today, it is hard to look back and appreciate where we were 22 years ago when the DMCA was passed.**

    a. **What types of online platforms did Congress have in mind when it passed the DMCA?**

Congress wasn't focused on types of platforms so much as types of functions offered by providers of internet services. Taking such a technology neutral approach has allowed the safe harbors in 17 U.S.C. § 512 to stand the test of time. The four functions covered by section 512—transmission, caching, hosting, and linking—are the same basic functions offered by today's online service providers.

    b. **What was the scale of online copyright piracy at the time the DMCA was passed in comparison to the scale of the problem today?**

The internet has far more users and websites now than in 1998, so it stands to reason that there is more infringement than 22 years ago. However, it has always been difficult to measure the impact of this infringement on sales of copyrighted works. In other words, it has been difficult to determine the actual substitution rate of infringing works. It appears that unlawful file sharing services such as Napster and Grokster did have an adverse impact on the recorded music industry. Most content industries have adjusted their business models towards licensed streaming to take advantage of the low distribution costs and enormous audiences of the internet while minimizing the risk of infringement. It appears that most of the websites which make infringing content available are located offshore, beyond the reach of U.S. law.

2. **The Conference Report accompanying the DMCA states that Title II, which relates to online infringement liability, was meant to "preserve[] 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."**

    a. **What was the expectation when the law was passed regarding how online service providers and copyright owners would cooperate to deal with online infringement?**

In section 512, Congress envisioned a regime of shared responsibility for addressing the problem of online piracy. This is exactly what developed. Content providers notify access providers of infringing subscribers, and the access providers terminate the accounts of alleged repeat infringers. Similarly, the content providers notify providers of hosting and information location services of infringing material, and the service providers take that material down. Many service providers facilitate the content providers' search for infringing material on their services, and have automated the notice-and-takedown process. (This automation, while efficient for content providers and service providers, does lead to a high rate of unwarranted takedowns.) Service

providers also use technologies that enable content providers to either block unauthorized content or monetize it. Moreover, content providers and service providers have entered into licensing arrangements to distribute content lawfully at low cost to offer consumers a convenient and affordable alternative to infringing material. These new business models relying on streaming have led to an explosion of creativity that benefits content industries, service providers, and consumers.

b. I've heard from many in the creative community that this idea of cooperation has broken down. That the DMCA has placed the entire burden on copyright owners to police infringement online. Do you agree that too much of the weight to police infringement falls on copyright owners? If you do, where did the DMCA fail?

I disagree that the cooperation has broken down and that too much weight to police infringement falls on copyright owners. The copyright owners are best placed to identify their content and determine whether it is being used without authorization. Once they identify the unauthorized content, the responsibility shifts to the service providers to remove it.

3. The Subcommittee will be focusing on the DMCA for most of this year with the expectation that reform legislation will be introduced late in the year.

a. As we embark on this process, what lessons learned can you share from your experience drafting and negotiating the original DMCA?

My advice for those considering future DMCA reforms is not to attempt them. The DMCA generally works, and the basic balance it achieved remains intact. A DMCA reform effort would be extremely contentious and time consuming, and likely would not have a demonstrable impact on online infringement. This is particularly so because most of the infringing sites reside overseas.

b. If you could go back and change one thing about the DMCA, what would it be and why?

I would amend section 1201 to prohibit only circumvention activities with a nexus to infringement. As section 1201 was being developed, we warned Congress that as drafted, it would have an adverse impact on lawful uses, and that the triennial rulemaking was inadequate (but certainly better than nothing). Nonetheless, Congress proceeded to ban circumvention (and circumvention devices) without a nexus to infringement. The cellphone unlocking debacle was the result. One can anticipate similar problems in the future.

March 3, 2020