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Answers to Questions for the Record

Senate Committee on the Judiciary
Subcommittee on Intellectual Property

***Copyright Law in Foreign Jurisdictions:
How Are Other Countries Handling Digital Piracy?***

April 14, 2020

Senators, I thank you for your interest in this important question, and for the opportunity to respond to your questions.

In some of my answers below I have used text from a Piracy Landscape Study my colleagues and I recently completed for the US Patent and Trademark Office. I would be happy to make the full text of that report available to your offices if that would be useful to you.

Questions from Senator Blumenthal

1. *Are there countries that have done a particularly good job at balancing the rights of content creators against copyright infringement with consumer rights and the growth of online platforms?*

The United Kingdom is a good example of a country that has implemented effective copyright protection policies that ensure an appropriate balance between the rights of content creators, consumers, and online platforms.

I discuss the empirical evidence surrounding one such program, the court-ordered ISP blocking of piracy websites, in more detail in my answer to your next question.

2. *Are there examples of successful statutes or technological tools that curb digital piracy?*

Yes. Numerous peer-reviewed academic studies show that government-led anti-piracy enforcement has been effective at reducing digital piracy and increasing legal sales. These studies include notice sending programs adopted in France and the Netherlands, the worldwide shutdown of the well-known piracy site Megaupload.com, and the court ordered ISP blocking of pirate websites in the UK. In addition, 2 peer-reviewed studies show that private efforts to make it more difficult for consumers to find pirated content can also be effective at reducing piracy and increasing legal sales.

In the context of government-led anti-piracy efforts, in Danaher et al. (2014), my co-authors and I studied the HADOPI law in France, a law that empowered rightsholders to monitor Internet traffic from French citizens for instances of copyright infringement, and to issue legal warnings and penalties in response. We found that this law caused French digital music sales to rise by 22-25% relative to a control group of countries, and that the resulting increase in sales was larger for more heavily pirated music genres.

In a similar setting, Adermon and Liang (2014) studied the IPRED law in Sweden, a law that made it easier for rightsholders to pursue cases against pirates. They found this law caused music sales

to increase by 36% in the six months after the law was passed; however, music sales returned to the pre-IPRED levels after citizens observed lax enforcement of the law.

With respect to site shutdowns, in Danaher and Smith (2014) my and I studied the impact of the 2012 global shutdown of Megaupload.com. We found that the shutdown of Megaupload led to a 6.5-8.5% increase in digital movie revenues for major Hollywood studios.

Most recently, in Danaher et al. (2020), my colleagues and I studied three separate—and increasingly broad—instances of ISP website blocks in the UK. In the first instance, which occurred in May 2012, ISPs were only required to block access to a single website: The Pirate Bay. Our results showed that blocking access to just The Pirate Bay did not cause legal consumption to increase; pirates simply shifted to other, readily available, piracy sites.

However, our results changed in November 2013 when the UK courts ordered ISPs to simultaneously block access to 19 different major video piracy sites and in November 2014 when the courts ordered ISPs to block 53 additional piracy sites. Specifically, we found that when 19 sites were blocked in November 2013, prior users of these sites increased their visits to paid legal streaming sites by 8%. For Netflix alone, we estimated this to mean an additional 44,000-60,000 paid subscribers who otherwise would have been consuming piracy. We found similar results following the November 2014 blocking, where prior users of the 53 blocked sites increased their visits to paid legal streaming sites by an additional 7-12%.

Finally, in the context of delisting pirate links from search results, Reimers (2016) studied the removal of content through private efforts: hiring a firm to identify links to pirated versions of ebooks and send takedown notices to the websites on which they were hosted. Reimers found that this anti-piracy effort caused a 15% increase in ebook sales for the treated titles. Similarly, in Sivan et al. (2019) my colleagues and I found that demoting pirate links in search results caused a statistically significant decrease in pirate consumption and a statistically significant increase in legal consumption among consumers searching for movies.

3. *How were those statutes perceived domestically among different public groups when they were first introduced?*

This question falls outside of my area of research expertise. However, based on our study of piracy website blocking in the UK, the blocked sites in our study were all primarily dedicated to the theft of copyrighted goods, and therefore were appropriately blocked by the courts.

Questions from Senator Coons

1. *Several foreign jurisdictions rely on no-fault injunctive relief to compel online providers to block access to websites hosting infringing content, subject to valid process. Could the United States implement a similar framework while providing adequate due process protections and without impinging on free speech rights? Why or why not?*

I'm not an expert on the legal issues involved in implementing website blocking programs. However, the economic evidence in Danaher et al. (2020) show that ISP website blocking in the UK was effective at shifting consumption away from pirated content and toward legal content. In the UK's implementation of this anti-piracy directive, due process was provided through the courts and I am not aware of any significant free speech concerns resulting from the blocked pirate websites.

2. *Critics contend that the EU Copyright Directive will require filtering algorithms that cannot distinguish between infringing material and content that is lawful based on fair-use. Do you agree with those concerns, and do you think they could be mitigated?*

I haven't studied this particular question in my academic research. However, I am generally aware that filtering technologies can be adjusted to search for complete matches or near matches, which would ameliorate most of these concerns. Online platforms are also adept at using data to improve the performance of their algorithms over time, and could apply similar techniques to improve the performance of filtering algorithms over time with regard to over- or under-filtering.

3. *Critics also warn that the EU Copyright Directive will lead to blocking legal content and chilling free speech. What is your perspective? Would you support a less aggressive provision requiring service providers to ensure that once infringing content has been removed pursuant to a notice-and-takedown procedure, the same user cannot repost the same content on any platform controlled by that provider?*

This question falls outside of my area of research expertise. However, when the DMCA was initially proposed, a variety of groups expressed concerns about the chilling effects that might

result from allowing copyright owners to request that sites be removed from search listings. To address this concern, the DMCA included a provision allowing sites to file a counternotice if they believed that a rightsholder had incorrectly requested the removal of a non-infringing link.

A recent policy brief authored by Professor Bruce Boyden and published by the Center for the Protection of Intellectual Property at George Mason University (Boyden 2013) reviewed the DMCA notices sent by MPAA companies between March 2013 and August 2013. He found that, only 8 of the 25,235,151 notices sent during that time resulted in counternotices for potentially inaccurate takedown requests.

4. *Some people contend that digital piracy actually benefits content creators because it helps publicize their works. Does your research support that assertion?*

The academic research shows that the amount of economic harm caused by digital piracy vastly outweighs any economic benefits. Moreover, piracy isn't the only way to generate free publicity for creative works. Absent piracy, rightsholders have numerous—and arguably more effective—ways to publicize their works by giving them away for free on rights-respecting platforms.

With regard to the academic research, I am aware of only one peer-reviewed empirical study that finds that piracy may benefit some types of content. Peukert et al. (2017) studied the effect of the Megaupload shutdown on film box office revenues and found that shutting down Megaupload increased revenues for movies in the top decile of revenue, had little effect on sales of movies in the middle 80% of revenue, and had a negative impact on movies in the bottom decile of revenue—movies which may have actually benefitted from the word-of-mouth effects associated with piracy (due to lack of awareness of such films).¹

When interpreting the economics of this result it is important to recognize that—although the *number* of movies in the top and bottom decile of sales is the same—the *revenue* generated by these movies is vastly different. According to data provided by Bruce Nash, founder and publisher of The Numbers (www.the-numbers.com), of the 556 movies that reported U.S. box office revenue

¹ My colleagues and I found similar results in an unpublished paper (Ma, Montgomery, and Smith 2016) where we showed that digital piracy reduced overall movie industry revenues by 14-15%, and that only the least popular 3% of movies in our sample may have benefitted from digital piracy.

in 2019, the 56 movies in the top decile of sales grossed \$9.2 billion while the 56 movies in the bottom decile grossed a mere \$310,000. As such, policies that increase sales of movies in the top decile (average revenue \$165 million per movie) can be socially efficient even if they have the unintended consequence of decreasing sales of movies in the bottom decile (average revenue \$5,540 per movie).

This is particularly apparent once one realizes that piracy isn't the only way for rightsholders to increase market awareness for their content. Rightsholders have ample opportunities to provide their content for free on platforms that respect copyright. Moreover, these platforms offer several benefits that aren't available through pirate websites. First, the rightsholder has the sole discretion to decide whether to make their content available for free. Second, the rightsholder has the option to remove their content from free availability at any time (for example, once awareness increases to the point where free availability is no longer beneficial). And third, rights respecting platforms are generally more closely associated with paid channels, making it easier to transition customers from free to paid consumption.

Questions from Senator Tillis

1. *Copyright is a big part of the US economy – some estimates say almost 7% of GDP – and copyright owners lose 10s of billions of dollars each year due to piracy. Are countries doing enough to protect U.S. copyright owners from online piracy?*

As an economist, I'm hesitant to make judgments about what constitutes *enough* piracy protection. However, I can say that the academic literature has shown that notice sending programs adopted in France and the Netherlands, the worldwide shutdown of the well-known piracy site Megaupload.com, and the court ordered ISP blocking of pirate websites in the UK, have all been effective at decreasing piracy and increasing legal consumption of entertainment products.

Specifically, in Danaher et al. (2014), my co-authors and I studied the HADOPI law in France, a law that empowered rightsholders to monitor Internet traffic from French citizens for instances of copyright infringement, and to issue legal warnings and penalties in response. We found that this law caused French digital music sales to rise by 22-25% relative to a control group of countries, and that the resulting increase in sales was larger for more heavily pirated music genres.

In a similar setting, Adermon and Liang (2014) studied the IPRED law in Sweden, a law that made it easier for rightsholders to pursue cases against pirates. They found this law caused music sales to increase by 36% in the six months after the law was passed; however, music sales returned to the pre-IPRED levels after citizens observed lax enforcement of the law.

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Most recently, in Danaher et al. (2020), my colleagues and I studied three separate—and increasingly broad—instances of ISP website blocks in the UK. In the first instance, which occurred in May 2012, ISPs were only required to block access to a single website: The Pirate Bay. Our data confirmed the findings described above: blocking access to just The Pirate Bay did not cause legal consumption to increase; pirates simply shifted to other, readily available, piracy sites.

However, our results changed in November 2013 when the courts ordered ISPs to simultaneously block access to 19 different major video piracy sites and in November 2014 when the courts ordered ISPs to block 53 additional piracy sites. Specifically, we found that when 19 sites were blocked in November 2013, prior users of these sites increased their visits to paid legal streaming sites (like Netflix) by 8%. Likewise, following the November 2014 blocking, prior users of the 53 blocked sites increased their visits to paid legal streaming sites by an additional 7-12%.

2. *From your research, what are the most effective vehicles for curbing online copyright infringement? Which of these could fit into our legal system and cultural values?*

Making judgments about what fits into a democratic regime is not my area of expertise. What I can say is that each of the studies cited above were enacted by countries with a generally similar legal system to ours and with similar societal interests in protecting consumer rights and free speech. In particular, the UK piracy website blocking initiative cited above achieved due process through the courts, and I am not aware of any significant free speech concerns resulting from the websites that were blocked as part of that program.

3. *Many countries have systems different from a U.S.-style notice-and-takedown regime – with different burdens and liabilities for service providers. How have these other systems affected the internet and online services in those countries?*

One of the arguments commonly advanced against website blocking is that it will “break the Internet” without significantly reducing the consumption of piracy. We now have evidence to test that hypothesis. A 2018 study by Nigel Cory at the Information Technology and Innovation Foundation (Cory 2018) documented that 17 countries in the European Union (including Belgium, Denmark, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, and the UK), and numerous other democratic countries worldwide, have adopted website blocking laws without significantly disrupting to the functioning of legitimate internet and online services. Additionally, our research in the UK provides empirical evidence that these blocks can be effective at their central goal: reducing piracy and increasing legal consumption.

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