

August 19, 2018 &

Federal Trade Commission  
600 Pennsylvania Avenue, NW  
Suite CC-5610 (Annex C)  
Washington, DC 20580  
Submitted via [www.regulations.gov](http://www.regulations.gov)

Re: & **Competition and Consumer Protection in the 21<sup>st</sup> Century Hearings,**  
**Project Number P181201**

Dear Sir/Madam,

I note that the FTC has initiated an inquiry into “whether broad-based changes in the economy, evolving business practices, new technologies, or international developments might require adjustments to competition and consumer protection enforcement law, enforcement priorities, and policy.”

In considering those issues generally, and in connection with questions surrounding intellectual property, competition policy and innovation, I wanted to bring to your attention the following academic papers analyzing the impact of intellectual property protection on consumer welfare and the impact of IP-enforcement. I hope these are useful to your inquiry:

***The Impact of Piracy on Sales:*** This paper reviews the economic literature on the impact of piracy on sales, finding that 23 out of 26 peer-reviewed academic papers find that piracy hurts legal sales. The paper then discusses empirical evidence on the effectiveness of both regulation and market-based solutions.

Danaher, Brett, Michael D. Smith, Rahul Telang. 2017. Copyright Enforcement in the Digital Age: Empirical Evidence and Conclusions. *Communications of the Association of Computing Machinery*. 60(2) 68-75. (<https://dl.acm.org/citation.cfm?id=2979673>)

***The Impact of Piracy on Creative Incentives:*** These papers provide evidence that by reducing revenue available to creators, piracy hurts their incentives to create, leading to less output and lower quality output than would have otherwise occurred:

Danaher, Brett, Michael D. Smith. 2017. Digital Piracy, Film Quality, and Social Welfare. *George Mason University Law Review*. 24(4:Summer) 923-938. (<https://heinonline.org/HOL/LandingPage?handle=hein.journals/gmlr24&div=39>)

“[T]he number of Academy Award winning films financed by higher piracy countries has decreased relative to the number of Academy Award winning films financed by lower piracy countries.”

Telang, Rahul, Joel Waldfogel. 2018. Piracy and New Product Creation: A Bollywood Story. *Information Economics and Policy*. **43** 1-11.  
(<https://doi.org/10.1016/j.infoecopol.2018.03.002>)

“[O]ur study provides suggestive evidence on a central tenet of copyright policy, that stronger effective copyright protection effects more creation.”

**The Impact of Anti-Piracy Regulations:** These papers provide evidence that anti-piracy efforts, when well designed, can reduce piracy and increase legal consumption. This includes graduated response notice sending programs and direct rightsholder actions, site seizures, ISP-level site blocking, and piracy’s prominence in online search results:

**Graduated Response and Direct Rightsholder Actions:**

Danaher, Brett, Michael D. Smith, Rahul Telang, Siwen Chen. 2014. The Effect of Graduated Response Anti-Piracy Laws on Music Sales: Evidence from an Event Study in France. *Journal of Industrial Economics*. **62**(3) 541-553.  
(<https://doi.org/10.1111/joie.12056>)

“We find that increased consumer awareness of HADOPI caused French iTunes music sales to increase by 22-25%.”

Adermon, Adrian and Che-Yuan Liang. 2014. Piracy and music sales: The effects of an anti-piracy law. *Journal of Economic Behavior and Organization*. **105**(Sept) 90–106.  
(<http://dx.doi.org/10.1016/j.jebo.2014.04.026>)

“We find that [implementation of a copyright protection reform in Sweden in April 2009] decreased Internet traffic by 16% and increased music sales by 36% during the first six months.”

**Site Seizures:**

Danaher, Brett, Michael D. Smith. 2014. Gone in 60 Seconds: The Impact of the Megaupload Shutdown on Movie Sales. *International Journal of Industrial Organization*. **33** 1-8. (<https://doi.org/10.1016/j.ijindorg.2013.12.001>)

“[W]e find that the shutdown of Megaupload and its associated sites caused digital revenues for three major motion picture studios to increase by 6.5–8.5%.”

**ISP-level Site Blocking:**

Danaher, Brett, Michael D. Smith, Rahul Telang. 2018. The Effect of Piracy Website Blocking on Consumer Behavior. Working Paper, Carnegie Mellon University, Pittsburgh, PA. (<https://ssrn.com/abstract=2612063>)

“Our results show that blocking a single site—The Pirate Bay—only caused a small reduction in total piracy and no increase in usage of legal sites...In contrast, blocking 19 different major piracy sites caused a meaningful reduction in total

piracy and subsequently led former users of the blocked sites to increase their usage of paid legal streaming sites.”

***Piracy in Online Search Results:***

Sivan, Liron, Michael D. Smith, Rahul Telang. 2018. Do Search Engines Influence Media Piracy? Evidence from a Randomized Field Study. Working Paper, Carnegie Mellon University, Pittsburgh, PA. (<https://ssrn.com/abstract=2495591>)

“Our data show that reducing the prominence of infringing links in search results causes users who otherwise would have consumed infringing content to switch their consumption to paid legal content, and that these results hold even among users whose initial search queries express an explicit preference for infringing content.”

Reimers, Imke. 2016. Can private copyright protection be effective? Evidence from book publishing. *The Journal of Law and Economics*. 59(2) 411–440. (<https://doi.org/10.1086/687521>)

“I find a protection-related increase in sales of electronic books—the closest substitute for online piracy—of more than 14 percent...”

Please let me know if you have any questions about these studies and/or how their findings may impact the need for adjustments to competition and enforcement priorities in the digital age.

Sincerely,

Professor Michael D. Smith  
Professor of Information Technology and Marketing  
Heinz College  
Carnegie Mellon University