Evaluating the Effect of Government Anti-Piracy
Laws on Filesharing and Media Sales

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Since the rise of Napster, "piracy killed the radio star" could be the global slogan of the music industry. Global music sales and licensing have plunged from nearly $27 billion US dollars in 2000 to $15 billion in 2010,[1] with some studies finding a coinciding decrease in investment in developing local talent in some countries (IFPI 2010). And the music industry is not alone, as broadband speed and penetration has increased, similar concerns have been raised by almost all major media industries.

An increasingly popular topic in the economics and information systems literatures has been to study how much of this sales decrease is due to displacement by Internet piracy. While estimates vary, the vast majority of studies have found that piracy has caused a significant decrease in music sales (see for example, Liebowitz (2006), Rob and Waldfogel (2004), Zentner (2006), Hui and Png (2003), OECD (2009)), and in other forms of media (see for example, Rob and Waldfogel (2006), Danaher and Waldfogel (2011), Ma et. al (2011)).

However, to date there have been far fewer academic studies analyzing what can be done about these declines in revenue, and in particular whether anti-piracy legislation will be effective in changing consumer behavior. We propose to study the effectiveness of recently passed anti-piracy legislation, including the controversial HADOPI law in France and recent changes in anti-piracy policy in South Korea.

We think of these laws as demand-side government policies, as they attempt to influence media consumers through either incentives (education or discounts for legal purchases) or sanctions (such as loss of Internet if found guilty of piracy). Depending on whether or not it is passed, our studies could also include evaluation of the effectiveness of supply-side policies such as the proposed "Stop Online Piracy Act" (SOPA) in the U.S.

These types of laws have seen great controversy each time they are proposed, leading to a dearth of natural experiments to study. Typically, the controversy centers on the "costs" of the legislation, including but not limited to:

1. The cost of enacting and enforcing the law.
2. The fact that these laws may violate the principle of net neutrality, which could have negative spillover effects on the efficiency of the Internet.
3. Potential violation of human rights (for example, the degree of due process associated with enforcement of these anti-piracy regulations, and questions raised in France

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[1] Source: IFPI. This includes both digital and physical sales of recorded music.

and the European Union around whether access to the Internet is a basic "human right" that should not be denied citizens.)

Absent from the discussion of these laws is a rigorous academic evaluation of benefits: will the laws be effective in changing consumer behavior, and is this change large enough to justify the potential costs? While there has been much speculation (on both sides) about the potential effectiveness of these laws, there have been no rigorous studies providing hard evidence. We propose to address this gap in the literature.

Proposed Method:

Because these laws are typically passed in one country, the issue of identification rises with the need to estimate the appropriate counterfactuals: what would sales or piracy volumes have looked like in the absence of the law? These counterfactuals may be estimated using a difference in difference approach, comparing sales or piracy time trends in the treated country with sales/piracy trends in similar countries where there has been no intervention.

To offer further proof that any effects (or absence of effects) that we observe are related to the passing of the law, we can add additional levels of difference into our model. For example, if music sales in France were to increase (relative to a control group) after the passing of HADOPI, we can look at how this increase differs across genres. Some genres of music are known to be high-piracy genres (e.g., rap, rock), and if HADOPI can affect sales by mitigating piracy, we would expect a greater effect for these high-piracy genres than for other, low-piracy genres.

We can analyze various forms of media (music, movies, television) in this manner, and we believe that we are uniquely positioned to do so. Through our other research in this area, we have developed research relationships giving us access to some of the data necessary to conduct this research. Other data may be able to be purchased from well-known data tracking firms.

We have also developed strong relationships with key piracy and consumer tracking firms (e.g., BayTSP, ComScore) that will give us access to data allowing us to correlate any changes in sales with corresponding changes in piracy levels. In fact, we have already conducted preliminary analyses on the HADOPI law in France, using data from one of the major record labels, and this analysis suggests that the HADOPI law was effective in increasing music sales.

Obtaining funding through the NBER Economics of Digitization and Copyright Initiative would allow us to significantly expand this analysis. NBER funding would help in two key ways. First, it will give us the option of purchasing necessary industry data, an expensive proposition even with academic discounts. Second, it would allow us to hire research assistants to help clean and process the data, also a non-trivial process given the multiple sources and formats likely for data across multiple countries, industries, and companies involved.