

Copyright in the Digital Era: Has Piracy Affected the Supply of Creative Works?

Brett Danaher
CPIP Fall Conference 2016

October 10, 2016

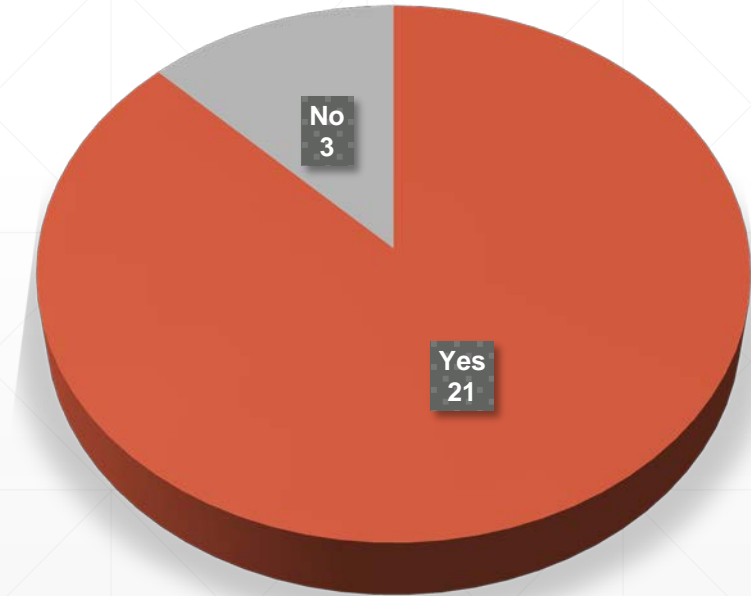
3 Questions about Digital Piracy and Copyright

- Has Internet filesharing displaced sales and revenues in the media industries?
-

3 Questions about Digital Piracy and Copyright

- Has Internet filesharing displaced sales and revenues in the media industries? **YES**

Number of Peer Reviewed
Published Studies



3 Questions about Digital Piracy and Copyright

- Has Internet filesharing displaced sales and revenues in the media industries? **YES**
 - What strategies or policies are effective in mitigating the effect that piracy/copyright erosion has had on sales?
-

3 Questions about Digital Piracy and Copyright

- Has Internet filesharing displaced sales and revenues in the media industries? **YES**
 - What strategies or policies are effective in mitigating the effect that piracy/copyright erosion has had on sales?
GOOD EMPIRICAL EVIDENCE
-

3 Questions about Digital Piracy and Copyright

- Has Internet filesharing displaced sales and revenues in the media industries? **YES**
 - What strategies or policies are effective in mitigating the effect that piracy/copyright erosion has had on sales?
GOOD EMPIRICAL EVIDENCE
 - Have revenues lost to filesharing affected the supply of creative works?
-

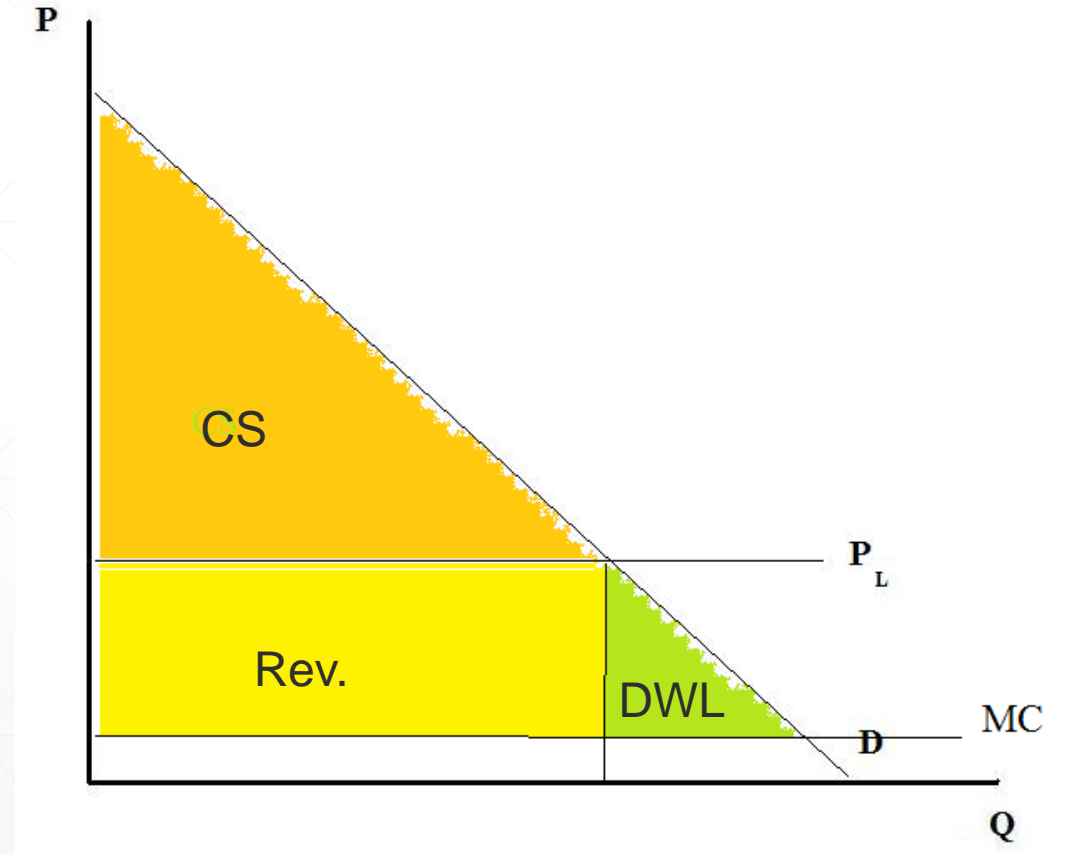
3 Questions about Digital Piracy and Copyright

- Has Internet filesharing displaced sales and revenues in the media industries? **YES**
- What strategies or policies are effective in mitigating the effect that piracy/copyright erosion has had on sales?
GOOD EMPIRICAL EVIDENCE
- Have revenues lost to filesharing affected the supply of creative works? **MISSING LINK**



Copyright – Philosophy vs. Economics

- Many arguments for copyright center around fairness and remuneration
- But to a mainstream economist the only argument for copyright is incentives to create
- If supply is not impacted, then copyright simply destroys welfare, piracy improves welfare



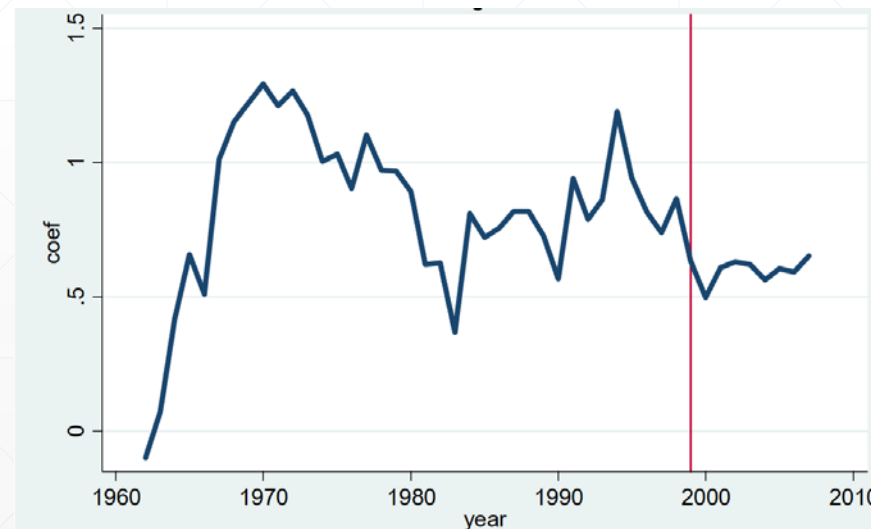
Gap in Empirical Copyright Literature

- So much theoretical reason to believe copyright erosion is influencing creators, and many anecdotes
 - But lack of systematic empirical evidence
-

What Does the Economic Literature Say?

- Post-Napster, supply of new, quality musical works has not changed from pre-Napster trend (Waldfogel 2012)
- Same for German music (Handke 2012)

Quality-indexed Supply of New Albums



What Does the Economic Literature Say?

- Number of movies produced has not fallen in the piracy era – and their appeal is just as high (Waldfogel 2015)
 - Reduced production and distribution costs have led to more movies getting made, and some of these have significant appeal
 - When VHS piracy hit Bollywood, it caused a large drop in the quantity and quality of films being produced (Telang and Waldfogel 2014)
-

Hard to Link Piracy and Supply



Yet Anecdotes Suggest an Effect

“You do kind of think, God, if we just had a little bit of that , we could have had that extra scene with the dragons...”

-David Benioff, co-creator of Game of Thrones,
on monetizing pirated downloads

So where are these changes in supply in the data?

So where are these changes in supply in the data?

Look for more subtle (but important) changes...

Maybe High Appeal Blockbusters Still Get Made, But...

- Hurt Locker sold 6 million tickets and theaters and was illegally downloaded roughly 10 million times
 - What movies might have been made in the counterfactual “no piracy” world?
-

Maybe High Appeal Blockbusters Still Get Made, But...

Low Budget



Medium Budget "Indies"

High Budget "Blockbusters"



Maybe High Appeal Blockbusters Still Get Made, But...

Low Budget



Medium Budget "Indies"

High Budget "Blockbusters"



Maybe High Appeal Blockbusters Still Get Made, But...

May correlate with risk....

Low Budget

Medium Budget "Indies"

High Budget "Blockbusters"



Less Incentive for “Artistically Neutral” Investors

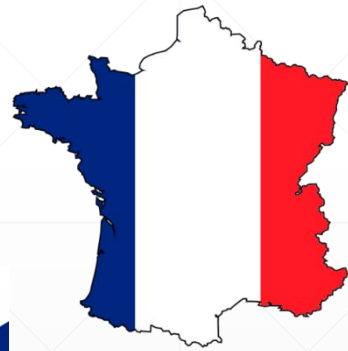
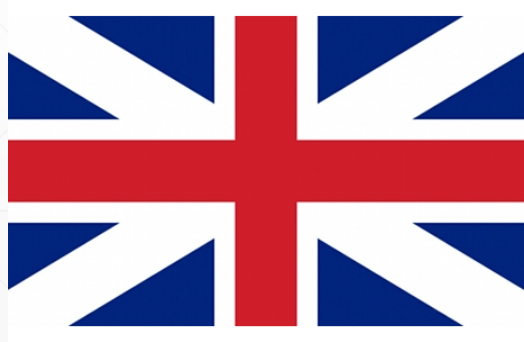
- If a movie is expected to make a good return, high incentive for artistically neutral investors
 - If returns look risky, investments may come from entities whose goal is to influence the film
 - Production incentives to shoot in certain locations
 - Desire to favorably portray a country or group
-

Cultural Displacement

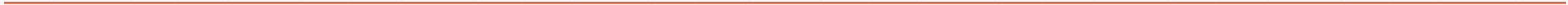
- Perhaps we are still getting the same number of products but the distribution has changed
 - If some groups or cultures pirate more, creators might shift production away from products that target those markets and toward “safer” markets
 - Then piracy harms consumers as well....
-

Empirical Test – Cultural Output

“Low Piracy”



“High Piracy”



Empirical Test – A Rough Example...

Academy Award Winning Films, Pre / Post Piracy

	1995 to 2006		2007-2014	
	<i># of Award Winning Movies</i>	<i>Total Awards</i>	<i># of Award Winning Movies</i>	<i>Total Awards</i>
Germany	22	40	10	15
UK	27	35	33	68
France	12	14	14	20
Mexico	4	7	1	1
Italy	8	10	2	2
Spain	4	6	3	3

Better Test – Levels of Private Investment

- A better measure than Academy Awards
 - Avoids “which country produced this movie?”
 - Also avoids public funding increases in response to piracy
 - Data hard to come by
 - But this issue is important!
-

In economic research on copyright erosion and piracy, empirical evidence of the effect on supply is the missing link.
