

RIETI-NISTEP Policy Symposium

Open Innovation as a Key Driver of Japan's Industrial Competitiveness

Handout



Joel WALDFOGEL

Professor, Carlson School of Management, University of Minnesota
Research Associate, NBER

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Research Institute of Economy, Trade and Industry (RIETI)

<http://www.rieti.go.jp/en/index.html>



Digitalization and innovation in media

Joel Waldfogel

University of Minnesota and NBER

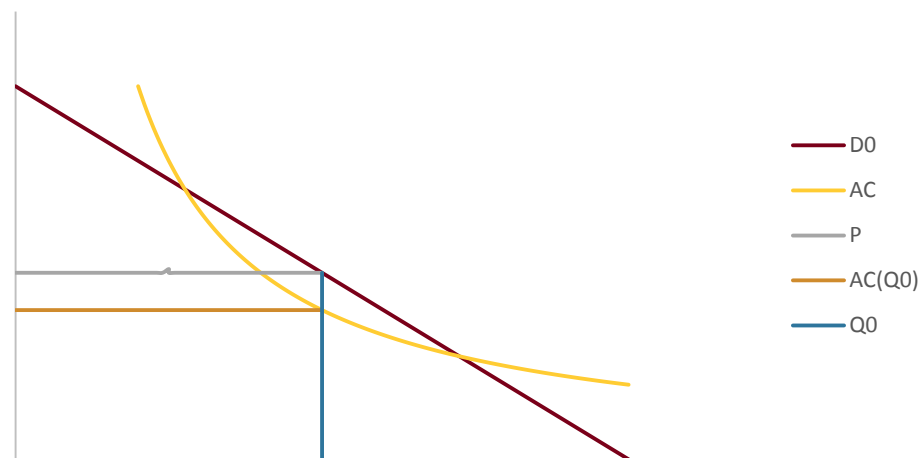
My story

- Digitization emerges as a threat
- But costs fall, producing an explosion of new products
- The new products appeal to consumers.
- Why? The role of unpredictability
- Changing roles for traditional vs new entities
- (Policy implications)

Before digitization

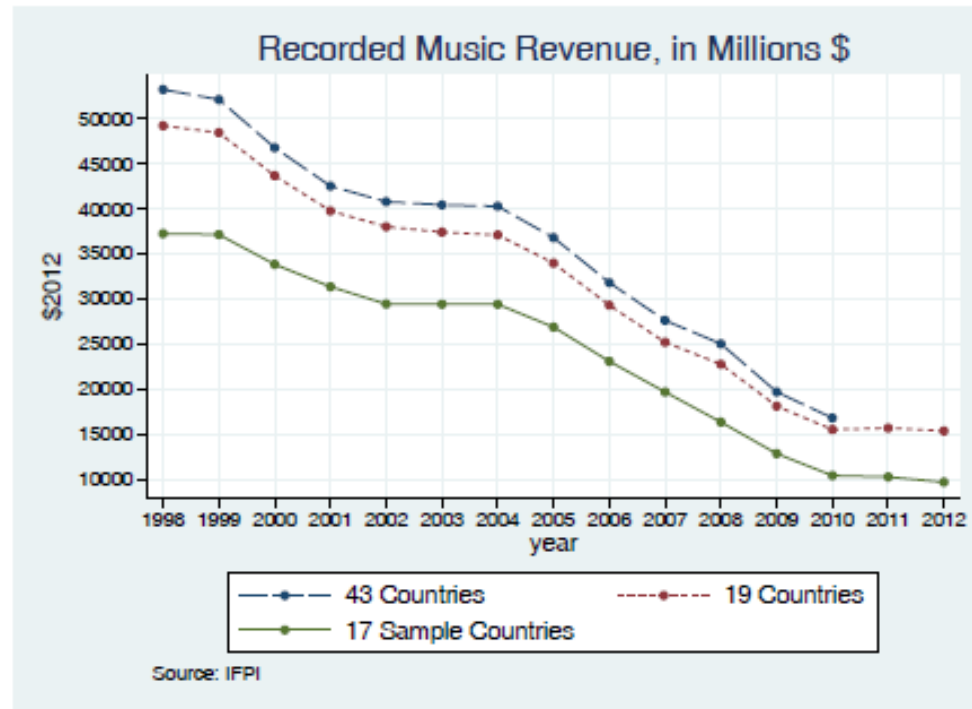
- Law & technology protect products, giving sellers market power
- Prices exceed marginal costs
- Revenues exceed fixed costs
- All is well

Representative product before piracy

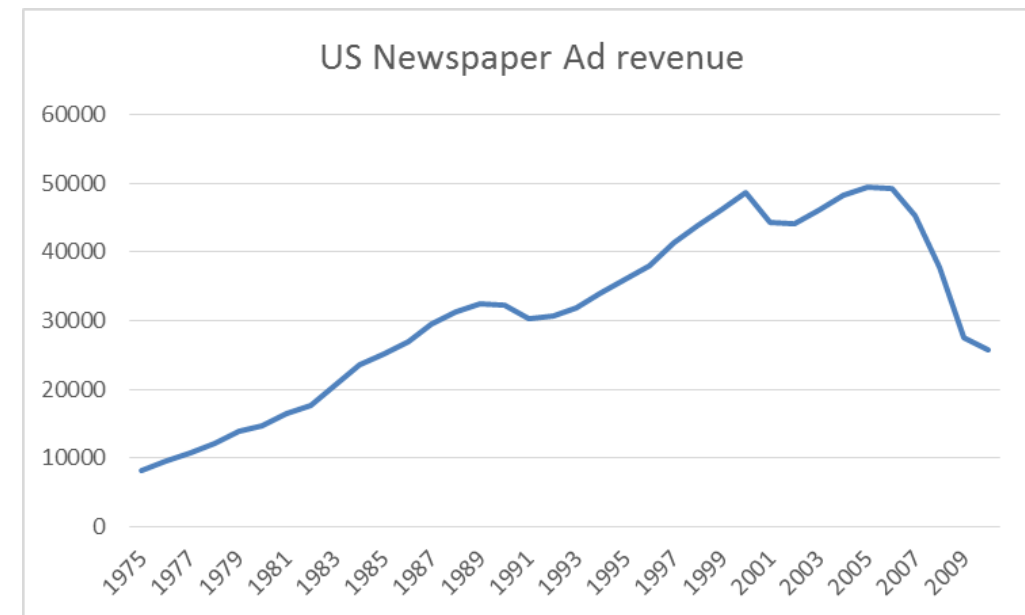


A little history: the threat from digitization

Music and Napster



newspapers



..lots of concern: will we continue have new products?

But costs have fallen as well

- Music
 - Old: studio + physical distribution + radio
 - New: Garageband + CDBaby/iTunes + Pandora/Lastfm + Pitchfork
- Movies
 - Old: Panavision + film + TV ads + 1000 screens
 - New: Canon 5D + Amazon/iTunes/Netflix + continuum of critics
- Books
 - Old: get accepted, physical production, distribution in stores
 - New: upload pdf to Amazon, blogs, Goodreads

The number of products has exploded

- Up enormously in music, books, and movies

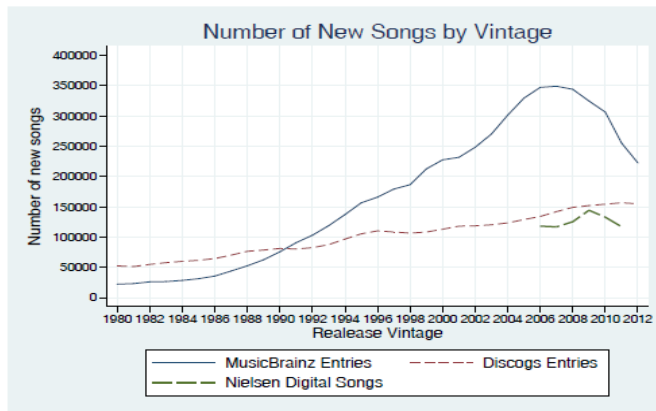
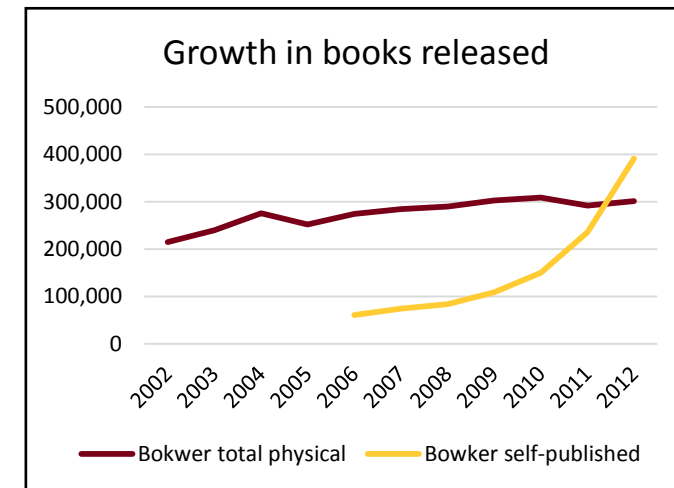
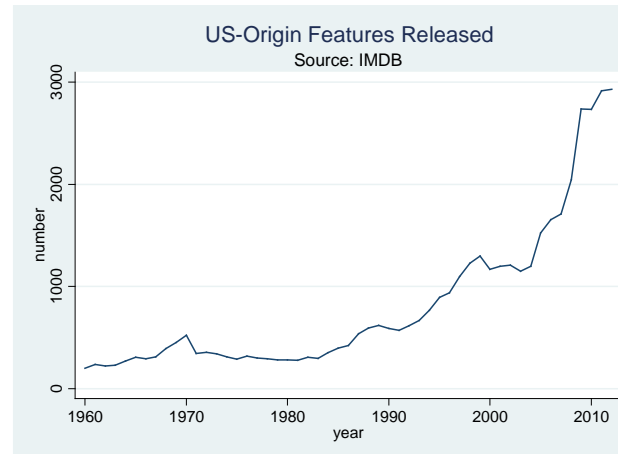
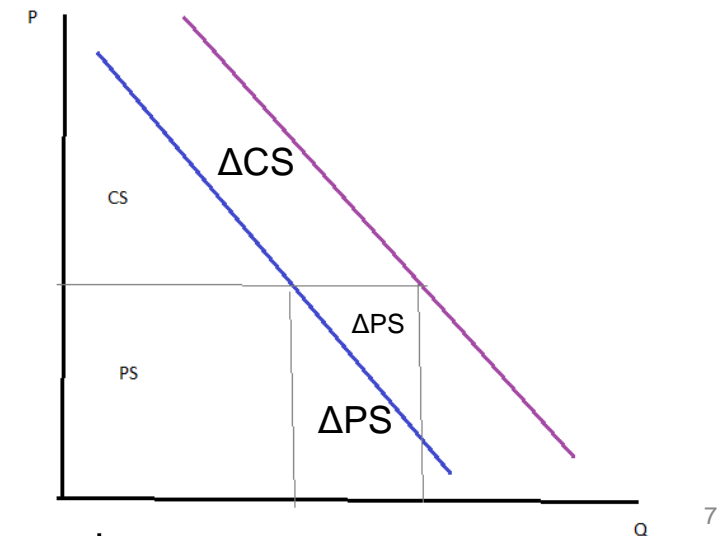


Figure 2: Evolution of the Number of New Songs.



But N is potentially uninformative

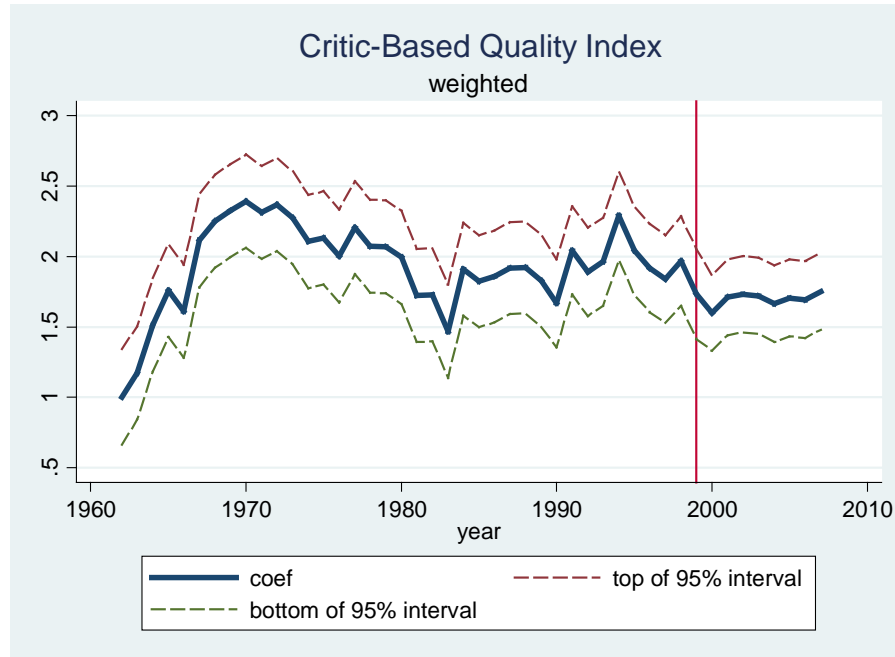
- Skew: the median product has no sales
- Need to know whether the new vintages – since digitization – generate surplus for producers and consumers
- “quality,” appeal, service flow



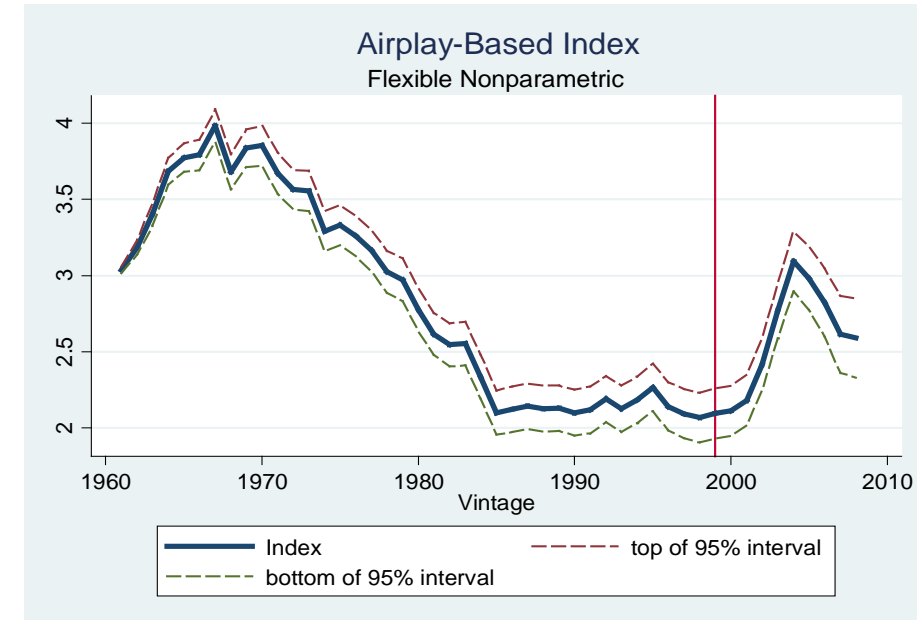
The appeal of new products has risen since digitization

- Two kinds of “quality” measures
 - Critical assessments
 - High usage of recent vintages conditional on age
- Especially surprising in music, where revenue collapsed

Music quality evidence



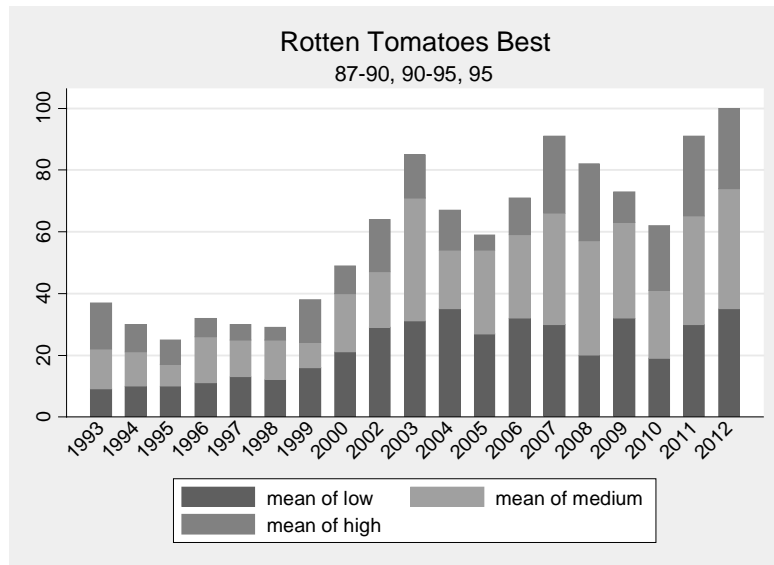
- Despite collapse of revenue since Napster, the number of “very good” works released did not fall



Recent vintages are highly used, conditional on their ages

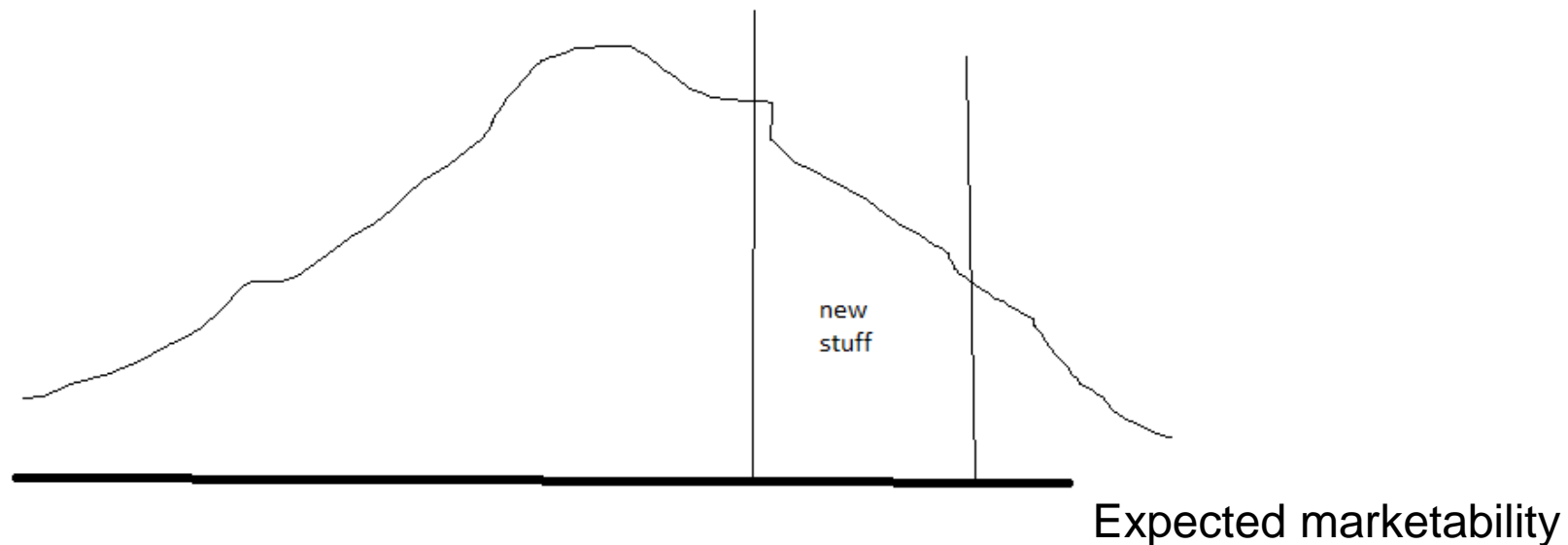
Movies quality has risen too

Historically high number of movies that critics like



Why the improvement? The role of unpredictability

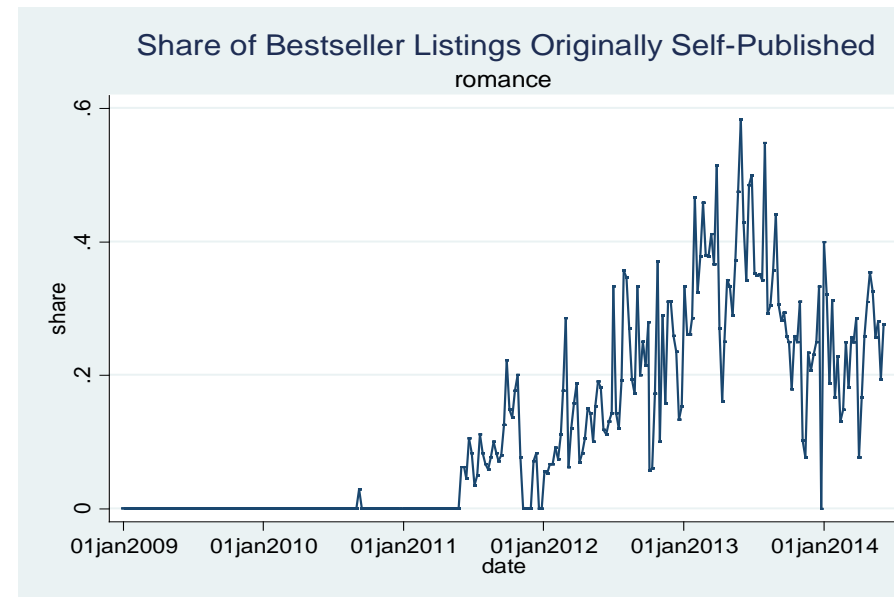
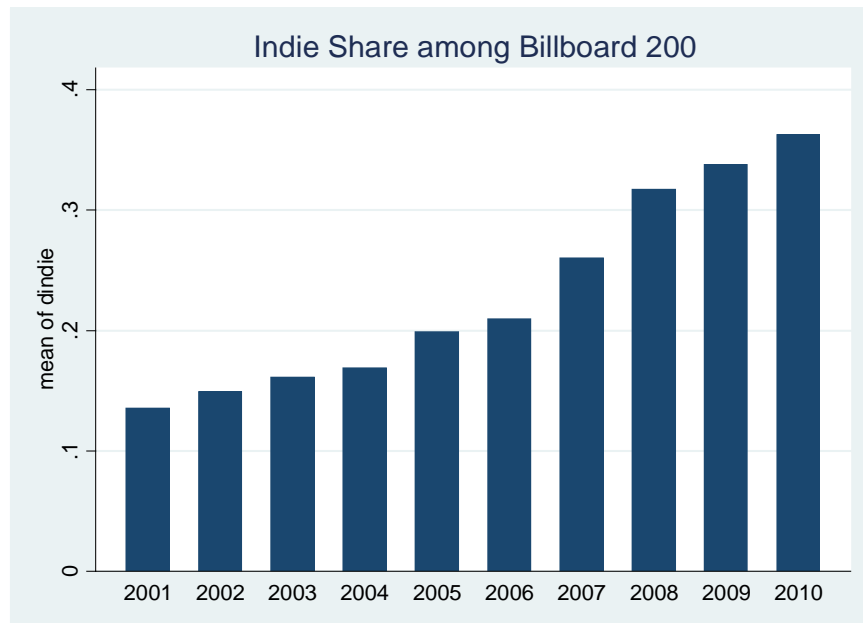
- Costs have fallen, so we get more new products
- Suppose quality were entirely predictable
 - Then we'd get “marginal” new products



But “nobody knows anything” ...

- ...so we get many bad things and some very good ones
- If this is true then **ex ante losers** should account for a rising share of **ex post winners**
- “Ex ante losers”
 - Books – self-published
 - Music and movies – products from independent producers
- “Ex post winners”
 - bestsellers

Ex ante losers growing among ex post winners



Evolving roles for incumbents and new entities

- Established firms are focusing increasingly on predictably successful projects
 - Leveraging their complementary assets
- Less predictable innovation occurs among independents
 - Music, movies, books

Conclusion

- Digitization arrived as bad news for everyone
- Good news for consumers
- Challenges for traditional producers & intermediaries
- Opportunities for new entities
- Policy: there may be good reasons to strengthen copyright enforcement, but ensuring the flow of new products in light of digitization is not one of them