

Digitization and Entertainment

Digitization Tutorial
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Overview: In this session, I would like to talk about how digitization and digital technologies have affected the market for entertainment and media goods. Digitization is important here because it has changed almost every aspect of how entertainment is created, distributed, and consumed. In this way, digitization has raised numerous important economic questions that impact consumers, firms, and regulators; and has opened new datasets and empirical methodologies for researchers to explore these questions.

Required Reading:

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2015. Understanding Media Markets in the Digital Age: Economics and Methodology, Goldfarb, Greenstein, and Tucker, eds. *Economic Analysis of the Digital Economy*. Chapter 13 (pp. 385-406), University of Chicago Press, Chicago, Illinois.

Godinho de Matos, Miguel, Pedro Ferreira, Michael D. Smith, Rahul Telang. 2016. Culling the herd: Using real world randomized experiments to measure social bias with known costly goods. *Management Science*. 62(9) 2563-2580.

Optional Reading (Skim if time allows):

Telang, Rahul, Joel Waldfogel. 2014. Piracy and New Product Creation: A Bollywood Story. Working Paper, Carnegie Mellon University (<https://ssrn.com/abstract=2478755>).

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2014. Information Discovery and the Long Tail of Motion Picture Content. *Management Information Systems Quarterly*. 38(4) 1057-1078.

Bakos, Yannis, Erik Brynjolfsson. 2000. Bundling and Competition on the Internet, *Marketing Science*, 19(1) 63-82.

Topics and Background Reading:

Piracy and Sales:

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.

Ma, Liye, Alan Montgomery, Param Singh, Michael D. Smith. 2014. An Empirical Analysis of the Impact of Pre-Release Movie Piracy on Box Office Revenue. *Information Systems Research*. 25(3) 590-603.

Smith, M.D., R. Telang. 2009. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Internet Piracy. *Management Information Systems Quarterly*, 33(2) 312-338.

Oberholzer, F., K. Strumpf. 2007. The Effect of File Sharing on Record Sales. An Empirical Analysis. *Journal of Political Economy*, 115(1) 1-42.

Rob, R., J. Waldfogel. 2006. Piracy on the High C's: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students. *Journal of Law and Economics*, 49(1) 29-62.

The Impact of Anti-Piracy Measures:

Reimers, Imke. 2016. Can Private Copyright Protection Be Effective? Evidence from Book Publishing. 2016. *The Journal of Law and Economics*. 59(2) 411-440.

(Required) Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2015. Understanding Media Markets in the Digital Age: Economics and Methodology, Goldfarb, Greenstein, and Tucker, eds. *Economic Analysis of the Digital Economy*. Chapter 13 (pp. 385-406), University of Chicago Press, Chicago, Illinois.

Aguiar L, Peukert C., and Claussen J. 2015. Online Copyright Enforcement, Consumer Behavior, and Market Structure. Working Paper. (<http://ssrn.com/abstract=2604197>)

Danaher, Brett, Michael D. Smith, Rahul Telang. 2015. The Effect of Piracy Website Blocking on Consumer Behavior. Working Paper, Carnegie Mellon University, Pittsburgh, PA. (<https://ssrn.com/abstract=2612063>)

Adermon, A., C.Y. Liang. 2014. Piracy and Music Sales: The Effect of an Anti-Piracy Law. *Journal of Economics Behavior and Organization*. 105, pp 90-106.

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.

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.

Poort, J., Leenheer, J, Ham, JVD, and Dumitru, C. 2014. Baywatch: Two Approaches to Measure the Effects of Blocking Access to The Pirate Bay. *Telecommunications Policy*. 38(1) 383-392.

The Long Tail:

Aguiar, Luis, Joel Waldfogel. 2016. Quality Unpredictability and the Welfare Benefit of New Products: Evidence from the Digitization of Recorded Music Products. NBER Working Paper (www.nber.org/papers/w22675).

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2014. Information Discovery and the Long Tail of Motion Picture Content. *Management Information Systems Quarterly*. 38(4) 1057-1078.

Zentner, Alejandro, Michael D. Smith, Cuneyd Kaya. 2013. How Video Rental Patterns Change as Consumers Move Online. *Management Science*. 59(11) 2622-2634.

Elberse, A., F. Oberholzer-Gee. 2007. Superstars and Underdogs: An Examination of The Long Tail Phenomenon in Video Sales. *Marketing Science Institute*. 4, pp. 49-72.

Brynjolfsson, Erik, Yu Hu, Michael Smith. 2003. Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety. *Management Science*, 49(11) 1580-1596.

New Product Creation:

Telang, Rahul, Joel Waldfogel. 2014. Piracy and New Product Creation: A Bollywood Story. Working Paper, Carnegie Mellon University (<https://ssrn.com/abstract=2478755>).

Danaher, Brett, Michael D. Smith. 2017. Digital Piracy, Film Quality, and Social Welfare. *George Mason University Law Review*. 24(4:Summer) 923-938.

Waldfogel, Joel. 2015. Digitization and the Quality of New Media Products: The Case of Music. Goldfarb, Greenstein, and Tucker, eds. *Economic Analysis of the Digital Economy*. Chapter 13 (pp. 407-442), University of Chicago Press, Chicago, Illinois.

Waldfogel, Joel. 2016. Cinematic Explosion: New Products, Unpredictability, and Realized Quality in the Digital Era. *Journal of Industrial Economics* 64(4) 755-772.

Waldfogel, Joel, Imke Reimers. 2015. Storming the gatekeepers: Digital disintermediation in the market for books. *Information Economics and Policy*, 31(C) 47-58.

Consumer Behavior and Marketing:

Chen, Hailiang, Yu Hu, Michael D. Smith. 2017. The Impact of Ebook Distribution on Print Sales: Analysis of a Natural Experiment. *Management Science*. Forthcoming.

Godinho de Matos, Miguel, Pedro Ferriera, Michael D. Smith. 2017. The Effect of Subscription Video-On-Demand on Piracy: Evidence from a Household Level Randomized Experiment. *Management Science*. Forthcoming.

(Required) Miguel Godinho de Matos, Pedro Ferreira, Michael D. Smith, Rahul Telang. 2016. Culling the herd: Using real world randomized experiments to measure social bias with known costly goods. *Management Science*. 62(9) 2563-2580.

Gong, Jing, Michael D. Smith, Rahul Telang. 2015. Substitution or Promotion? The Impact of Price Discounts on Cross-Channel Sales of Digital Movies. *Journal of Retailing*. 91(2) 343-357.

Danaher, Brett, Yan Huang, Michael D. Smith, Rahul Telang. 2015. An Empirical Analysis of Digital Music Bundling Strategies. *Management Science*, Special Issue on Business Analytics, 60(6) 1413-1433.

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2010. Converting Pirates without Cannibalizing Purchasers: The Impact of Digital Distribution on Physical Sales and Internet Piracy. *Marketing Science*, 29(6) 1138-1151.

Market Structure and Competition:

Daegon Cho, Michael D. Smith, Alejandro Zentner. 2016. Internet Adoption and the Survival of Print Newspapers: A Country-Level Examination. *Information Economics and Policy*. 37, 13-19.

Seamans, Robert, Feng Zhu. 2014. Responses to Entry in Multi-Sided Markets: The Impact of Craigslist on Local Newspapers. *Management Science*. 60(2): 476-493.

Bakos, Yannis, Erik Brynjolfsson. 2000. Bundling and Competition on the Internet, *Marketing Science*, 19(1) 63-82.