



# HARVARD | BUSINESS | SCHOOL

May 2, 2018

## Benjamin G. Edelman

169 Walnut St  
Brookline, MA 02445  
(617) 359-3360

### EDUCATION

- 2007 Ph.D., Economics, Harvard University  
Dissertation: Topics in Internet Advertising  
Committee: Professor Ariel Pakes (chair)  
Professor David Parkes  
Professor Alvin Roth
- 2005 J.D., Harvard Law School
- 2002 A.M., Statistics, Harvard University
- 2002 A.B., Economics, *summa cum laude*, Harvard University

### Appointments

- 2011-present Associate Professor, Harvard Business School  
2007-2011 Assistant Professor, Harvard Business School

### Teaching Assignments

- 2017, 2018 Leadership and Corporate Accountability  
2015, 2016 FIELD 3  
2010-2015 The Online Economy: Strategy and Entrepreneurship  
2008-2010 Managing Networked Businesses  
2007-2008 Negotiation

### Executive Education Teaching

- Retail Forum for Senior Leaders – June 2016, June 2017, June 2018  
Strategic Negotiation – January 2016, May 2016  
Driving Digital and Social Strategy – April 2015  
YPO President’s Program – January 2015  
Driving Digital and Social Strategy – March 2014  
IBM Strategy & Transformation Master Class – July 2013  
Effective Strategies for Media Companies – September 2012  
Taking Marketing Digital – Sep. 2009, March 2010, Sep. 2010, April 2011, Sep. 2011, May 2012  
Delivery Information Systems – July 2009, July 2010, July 2011

Cable & Telecommunications Association for Marketing – Executive Management Program – June 2011  
Owner/President Management Program – February 2011  
Advanced Management Program – April 2011  
Develop India: Real Estate Strategies for Growth – May 2011

## **PUBLICATIONS**

### **Journal articles and book chapters: economics & management**

“The Market Design and Policy of Online Review Platforms.” Oxford Review of Economic Policy 33, no. 4 (Winter 2017).

“Uber Can't Be Fixed—It's Time for Regulators to Shut It Down.” Harvard Business Review (Digital) (June 21, 2017).

Edelman, Benjamin, Michael Luca, and Daniel Svirsky. “Racial Discrimination in the Sharing Economy: Evidence from a Field Experiment.” American Economic Journal: Applied Economics 9, no. 2 (April 2017), 1-22.

Edelman, Benjamin, and Zhenyu Lai. “Design of Search Engine Services: Channel Interdependence in Search Engine Results.” Journal of Marketing Research 53, no. 6 (2016), 881-900.

Edelman, Benjamin, Sonia Jaffe, and Scott Duke Kominers. “To Groupon or Not to Groupon: The Profitability of Deep Discounts.” Marketing Letters 27 no. 1 (2016), 39-53.

Edelman, Benjamin, and Damien Geradin. “Spontaneous Deregulation: How to Compete with Platforms That Ignore the Rules.” Harvard Business Review 94, no. 4 (April 2016): 80–87.

Edelman, Benjamin and Julian Wright. “Price Coherence and Excessive Intermediation.” Quarterly Journal of Economics 130, no. 3 (August 2015): 1283-1328.

Edelman, Benjamin, and Michael Schwarz. “Pricing and Efficiency in the Market for IP Addresses.” American Economic Journal: Microeconomics 7, no. 3 (August 2015): 1-23 (lead article).

Böhme, Rainer, Nicolas Christin, Benjamin Edelman, and Tyler Moore. “Bitcoin: Economics, Technology, and Governance.” Journal of Economic Perspectives 29, no. 2 (Spring 2015): 213-238.

“How to Launch Your Digital Platform.” Harvard Business Review 93, no. 4 (April 2015): 90-97.

Edelman, Benjamin, and Wesley Brandi. “Risk, Information, and Incentives in Online Affiliate Marketing.” Journal of Marketing Research 52, no. 1 (February 2015): 1–12 (lead article).

Edelman, Benjamin, and Ian Larkin. “Social Comparisons and Deception Across Workplace Hierarchies: Field and Experimental Evidence.” Organization Science 26, no. 1 (January-February 2015): 78-98.

Edelman, Benjamin and Julian Wright. “Price Restrictions in Multi-sided Platforms: Practices and Responses.” Competition Policy International 10, no. 2 (Autumn 2014): 87-101.

“Mastering the Intermediaries: Strategies for Dealing with the Likes of Google, Amazon, and Kayak.” Harvard Business Review 92, no. 6 (June 2014): 86–92.

“Pitfalls and Fraud in Online Advertising Metrics: What Makes Advertisers Vulnerable to Cheaters, and How They Can Protect Themselves.” Journal of Advertising Research 54, no. 2 (June 2014): 127–132.

“The Design of Online Advertising Markets.” Chap. 15 in The Handbook of Market Design, edited by Nir Vulkan, Alvin E. Roth, and Zvika Neeman. Oxford University Press, 2013.

“Earnings and Ratings at Google Answers.” Economic Inquiry (April 2012): 309–320.

Edelman, Benjamin, and Duncan S. Gilchrist. “Advertising Disclosures: Measuring Labeling Alternatives in Internet Search Engines.” Information Economics and Policy 24, no. 1 (March 2012): 75–89.

“Using Internet Data for Economic Research.” Journal of Economic Perspectives 26, no. 2 (Spring 2012): 189–206.

Edelman, Benjamin, and Michael Schwarz. “Optimal Auction Design and Equilibrium Selection in Sponsored Search Auctions.” American Economic Review – Papers & Proceedings 100, no. 2 (May 2010). (First circulated in 2006 as Optimal Auction Design in a Multi-unit Environment: The Case of Sponsored Search Auctions.)

“How to Combat Online Ad Fraud.” Harvard Business Review 87, no. 12 (December 2009): 24-25. (Full version published online as “The Dark Underbelly of Online Advertising.” HBR Now, December 2009.)

“Who Owns Metrics?: Building a Bill of Rights for Online Advertisers.” Journal of Advertising Research 49, no. 4 (December 2009).

“Red Light States: Who Buys Online Adult Entertainment?” Journal of Economic Perspectives 23, no. 1 (winter 2009): 209-220.

“Priced and Unpriced Online Markets.” Journal of Economic Perspectives (summer 2009): 21–36.

“Towards a Bill of Rights for Online Advertisers.” Advertising Week (2009).

Edelman, Benjamin, Michael Ostrovsky, and Michael Schwarz. “Internet Advertising and the Generalized Second Price Auction: Selling Billions of Dollars Worth of Keywords.” American Economic Review 97, no. 1 (March 2007): 242-259.

Edelman, Benjamin, and Michael Ostrovsky. “Strategic Bidder Behavior in Sponsored Search Auctions.” Journal of Decision Support Systems 43, no. 1 (February 2007): 192-198.

### **Journal articles and book chapters: computer science, public policy, and law**

Edelman, Benjamin and Abbey Stemler. “From the Digital to the Physical: Federal Limitations on Regulating Online Marketplaces.” Harvard Journal on Legislation (forthcoming).

“Google, Mobile and Competition: The Current State of Play.” CPI Antitrust Chronicle (Winter 2017).

Edelman, Benjamin, and Damien Geradin. “Android and Competition Law: Exploring and Assessing Google's Practices in Mobile.” European Competition Journal 12 (2016): 159-194.

Edelman, Benjamin, and Damien Geradin. “Efficiencies and Regulatory Shortcuts: How Should We Regulate Companies like Airbnb and Uber?” Stanford Technology Law Review 19 (2016): 293-328.

“Whither Uber? Competitive Dynamics in Transportation Networks.” Competition Policy International 11, no. 1 (Spring–Fall 2015).

“Does Google Leverage Market Power Through Tying and Bundling?” Journal of Competition Law & Economics 11, no. 2 (June 2015): 365-400.

“Accountable? The Problems and Solutions of Online Ad Optimization.” IEEE Security & Privacy 12, no. 6 (November–December 2014): 102–107.

Cary, Matthew, Aparna Das, Benjamin Edelman, Ioannis Giotis, Kurtis Heimerl, Anna Karlin, Scott Kominers, Claire Mathieu, and Michael Schwarz. “Convergence of Position Auctions under Myopic Best-Response Dynamics.” ACM Transactions on Economics and Computation 2, no. 3 (July 2014): 9:1–9:20.

Edelman, Benjamin, and Stephen Ryan. “Guidance from ARIN on Legal Aspects of the Transfer of Internet Protocol Numbers.” Business Law Today (May 2013).

Ryan, Stephen, Benjamin Edelman, and Matthew Martel. “Internet Protocol Numbers and the American Registry for Internet Numbers: Suggested Guidance for Bankruptcy Trustees, Debtors-in-Possession, and Receivers.” BNA’s Bankruptcy Law Reporter (January 5, 2012).

“Antitrust Scrutiny of Google.” Journal of Law 2, no. 2 (2012): 445–464.

“Adverse Selection in Online ‘Trust’ Certifications and Search Results.” Electronic Commerce Research and Applications 10 (2011) 17-25.

“Bias in Search Results?: Diagnosis and Response.” Indian Journal of Law and Technology 7 (2011): 16-32.

“Least-Cost Avoiders in Online Fraud and Abuse.” IEEE Security and Privacy (July - August 2010).

“The Pathologies of Online Display Advertising Marketplaces.” ACM Sigecom Exchanges, June 2010.

Moore, Tyler, and Benjamin Edelman. “Measuring the Perpetrators and Funders of Typosquatting.” Proceedings of the Fourteenth International Conference on Financial Cryptography and Data Security 6052 (2010). (Springer-Verlag Lecture Notes in Computer Science.)

“Deterring Online Advertising Fraud Through Optimal Payment in Arrears.” Proceedings of the Thirteenth International Conference on Financial Cryptography and Data Security, September 2009. (Springer-Verlag Lecture Notes in Computer Science.)

“Fraud in Online Advertising.” Business Standard (April 27, 2009).

“Adverse Selection in Online ‘Trust’ Certifications.” Proceedings of the 11th International Conference on Electronic Commerce (2009): 205-212. (ACM International Conference Proceeding Series.)

“Running Out of Numbers: Scarcity of IP Addresses and What To Do About It.” First Conference on Auctions, Market Mechanisms and Their Applications 14 (2009): 95-106. (Springer-Verlag Lecture Notes of the Institute for Computer Science.)

“Securing Online Advertising: Rustlers and Sheriffs in the New Wild West.” In Beautiful Security, edited by Andy Oram and John Viega. O’Reilly Media, Inc., 2009.

“Typosquatting: Unintended Adventures in Browsing.” McAfee Security Journal, fall 2008, 34-37.

“Assessing and Improving the Safety of Internet Search Engines.” In The Power of Search Engines, edited by Marcel Machill and Markus Beiler, 259-277. Koln, Germany: Herbert von Halem Verlag, 2007.

Cary, Matthew, Aparna Das, Benjamin Edelman, Ioannis Giotis, Kurtis Heimerl, Anna Karlin, Claire Mathieu, and Michael Schwarz. “Greedy Bidding Strategies for Keyword Auctions.” Proceedings of the 9th ACM Conference on Electronic Commerce (2007).

Zittrain, Jonathan, and Benjamin Edelman. “Internet Filtering in China.” IEEE Internet Computing 7, no. 2 (March/April 2003).

## **CASES, NOTES, TEACHING NOTES, AND SUPPLEMENTS**

- Ad Classification at Right Media. HBS Case 909-032 (2009). [9]
- Ad Classification at Right Media (TN). HBS Case 909-037 (2009, rev. 2014). [24]
- Ad Classification at Right Media (standard, widescreen, and pre-class slide supplement). HBS Supplement 911-038, 914-054, and 911-037 (2010, 2014, 2010). [31, 31, 28]
- Airbnb (A) and (B). HBS Case 912-019 and -020 (2011, rev. 2012). With Michael Luca. [7, 1]
- Airbnb (TN). HBS Teaching Note 912-021 (2011, rev. 2015). With Michael Luca. [13]
- Akamai Technologies. HBS Case 804-158 (2004, rev. 2010). With Thomas Eisenmann and Eric Van den Steen. [20]
- Attack of the Clones: Birchbox Defends Against Copycat Competitors. HBS Case 912-010 (2011, rev. 2014). With Peter Coles. [9]
- Consumer Payment Systems – United States. HBS Case 909-006 (2009). With Andrei Hagiu. [16]
- Consumer Payment Systems – Japan. HBS Case 909-007 (2008, rev. 2009). With Andrei Hagiu. [12]
- Consumer Payment Systems – United States and Japan (TN). HBS Teaching Note 909-039 (2009). With Andrei Hagiu. [21]
- David Dao on United Airlines. HBS Case 917-026 (2017) [16]
- David Dao on United Airlines (TN). HBS Teaching Note 917-027 (2017) [11]
- “Disintermediation in Two-Sided Marketplaces.” Harvard Business School Technical Note 917-004 (2016). With Philip Hu. [10]
- Distribution at American Airlines (A), (B), (C), and (D). HBS Case 909-035, -036, 913-034, and -035 (2009, 2009, 2013, 2013). [10, 1, 2, 1]
- Distribution at American Airlines (TN). HBS Teaching Note 909-059 (2009, rev. 2014). [14]
- Distribution at American Airlines (slide supplement). HBS Supplement 914-039 (2014). [19]
- eBay Partner Network (A), (B), (C), and (D). HBS Case 910-008, -009, -012, and 914-016 (2009, 2009, 2009, 2013, all rev. 2015). (A)-(C) with Ian Larkin. [14, 2, 1, 2]
- eBay Partner Network (TN). HBS Teaching Note 910-025 (2009, rev. 2015). With Ian Larkin. [19]
- eBay Partner Network (standard and widescreen slide supplement). HBS Supplement 911-039 and 914-040 (2010, rev. 2014; 2014). [26]
- Google Inc. HBS Case 910-036 (2010, rev. 2011). With Thomas Eisenmann. [21]
- Google Inc. (Abridged). HBS Case 910-032 (2010). With Thomas Eisenmann. [12]
- Google Inc. and Google Inc. (Abridged) (TN). HBS Teaching Note 910-050 (2010). With Thomas Eisenmann. [28]
- Google Inc. in 2014. HBS Case 915-004 (2014). With Thomas Eisenmann. [24]
- Google Inc. in 2014 (Abridged). HBS Case 915-005 (2014). With Thomas Eisenmann. [15]

Google Inc. in 2014 and Google Inc. in 2014 (Abridged) (TN). HBS Teaching Note 915-011 (2014). With Thomas Eisenmann. [29]

Google Inc. in 2014 (role supplement). HBS Supplement 915-017 (2014). [23]

The iPhone at IVK (TN). HBS Teaching Note 911-414 (2010). [4]

Market Design in Online Businesses (Abridged). HBS Module Note 915-016 (2014). With Peter Coles. [28]

The Market Power of Platform-Mediated Networks. HBS Technical Note 914-029 (2014, rev. 2015). [8]

Microsoft adCenter. HBS Case 908-049 (2008, rev. 2010). With Peter Coles. [16]

Microsoft adCenter (TN). HBS Teaching Note 908-062 (2008, rev. 2010). With Peter Coles. [11]

“Mission Impossible? Yummy77 Delivers Groceries within the Hour.” Harvard Business School Case 916-025 (2016). [14]

“Mission Impossible? Yummy77 Delivers Groceries within the Hour.” Harvard Business School Teaching Plan 916-051 (2016). [8]

“Mission Impossible? Yummy77 Delivers Groceries within the Hour.” Harvard Business School slide supplement 916-703 (2016). [5]

Mobilizing an Online Business. HBS Background Note 913-061 (2013). With Peter Coles [1]

Mobilizing an Online Business (TN). HBS Teaching Note 913-062 (2013). [9]

Mobilizing an Online Business (standard and widescreen slide supplement). HBS Supplement 913-702 and 914-053 (2013, 2014). [17]

Mobilizing Networked Businesses. HBS Module Note 911-048. With Peter Coles. (2011, rev. 2015) [12]

The Online Economy: Strategy and Entrepreneurship (Course Architecture Note). HBS Overview Note 911-069 (2011, rev. 2015). With Peter Coles. [11]

Online Marketing at Big Skinny. HBS Case 911-033 (2011, rev. 2012). With Scott Kominers. [13]

Online Marketing at Big Skinny (TN). HBS Teaching Note 911-034 (2011, rev. 2014). With Scott Kominers. [16]

Online Marketing at Big Skinny (slide supplement). HBS Supplement 912-006 (2011). With Scott Kominers. [12]

Online Restaurant Promotions. HBS Case 909-034 (2009, rev. 2010). [16]

Online Restaurant Promotions (TN). HBS Teaching Note 909-063 (2009). [12]

Opening Dot EU (A) and (B). HBS Case 908-052 and -053 (2008). [14, 4]

Optimization and Expansion at OpenTable. HBS Case 915-003 (2014, rev. 2015). With Karen Webster. [15]

Optimization and Expansion at OpenTable (TN). HBS Teaching Note 915-013 (2014). [9]

Optimization and Expansion at OpenTable (slide supplement). HBS Supplement 915-701 (2014). [14]

Personal Rapid Transport at Vectus, Ltd. HBS Case 910-010 (2009, rev. 2010). [16]

Personal Rapid Transport at Vectus, Ltd. (TN). HBS Teaching Note 910-024 (2010). [8]

Pivots and Incentives at LevelUp. HBS Case 915-001 (2014, rev. 2015). With Karen Webster. [15]  
Pivots and Incentives at LevelUp (TN). HBS Teaching Note 915-015 (2015). [10]  
Pricing and Partnership at Zillow, Inc. HBS Case 913-021 (2012, rev. 2015). With Peter Coles. [17]  
Pricing and Partnership at Zillow, Inc. (TN) HBS Teaching Note 914-043 (2014). [11]  
Reinventing Retail: ShopRunner's Network Bet. HBS Case 915-002 (2014, rev. 2015). With Karen Webster. [8]  
Reinventing Retail: ShopRunner's Network Bet (TN). HBS Teaching Note 915-023 (2015). [9]  
Resuscitating Monittr. HBS Case 915-027 (2015). With Wei Sun. [18]  
Resuscitating Monittr (TN). HBS Teaching Note 916-007 (2015). With Wei Sun. [17]  
Resuscitating Monittr (slide supplement). HBS Supplement 916-701 (2015). With Wei Sun. [7]  
SaferTaxi: Connecting Taxis and Passengers in South America. HBS Case 913-041 (2013, rev. 2014). With Peter Coles. [10]  
SaferTaxi: Connecting Taxis and Passengers in South America (TN). HBS Teaching Note 913-063 (2013). With Peter Coles. [6]  
Symbian, Google & Apple in the Mobile Space (A) and (B). HBS Case 909-055 and -056 (2009). With Fernando Suarez and Arati Srinivasan. [18, 2]  
TheLadders. HBS Case 908-061 (2008, rev. 2015). With Peter Coles, Brian Hall, and Nicole Bennett. [15]  
TheLadders (B). HBS Supplement 914-017 (2013, rev. 2015). [4]  
TheLadders (C). HBS Supplement 916-017 (2015). [2]  
TheLadders (TN). HBS Teaching Note 909-005 (2). With Peter Coles. [12]  
Three Problems in Protecting Competition. HBS Case 917-012 (2016). With Lena Goldberg. [12]  
Three Problems in Protecting Competition (TN). HBS Teaching Note 917-014 (2017). With Lena Goldberg. [14]  
Windows Vista. HBS Case 909-038 (2009, rev. 2010). [16]

### **SELECTED ONLINE PUBLICATIONS**

"Digital Business Models Should Have to Follow the Law, Too" (2015) HBR Online  
"Google's Advertisement Labeling in 2014" (2014)  
[benedelman.org/adlabeling/google-colors-oct2014.html](http://benedelman.org/adlabeling/google-colors-oct2014.html)  
"Consumers Pay More when They Pay with Bitcoin" (2014) PYMNTS.COM  
"Secret Ties in Google's "Open" Android" (2014) [benedelman.org/news-021314](http://benedelman.org/news-021314)  
"Misrepresentation of Fuel Surcharges in Airline Price Advertising" (2013-2015)  
[benedelman.org/airfare-advertising](http://benedelman.org/airfare-advertising)  
"Measuring Bias in 'Organic' Web Search" (2011) with Ben Lockwood [benedelman.org/searchbias](http://benedelman.org/searchbias)

“Facebook Leaks Usernames, User IDs, and Personal Details to Advertisers” (2010)  
benedelman.org/news-052010

“Google Toolbar Tracks Browsing Even After Users Choose ‘Disable’” (2010)  
benedelman.org/news-012610

“Hard-Coding Bias in Google ‘Algorithmic’ Search Results” (2010) benedelman.org/hardcoding

“Upromise Savings -- At What Cost?” (2010) benedelman.org/news-012110

“False and Deceptive Display Ads at Yahoo’s Right Media” (2009)  
benedelman.org/rightmedia-deception

“How Google and Its Partners Inflate Measured Conversion Rates and Increase Advertisers’ Costs”  
(2009) benedelman.org/news-051309

“Towards a Bill of Rights for Online Advertisers” (2009) benedelman.org/advertisersrights

“CPA Advertising Fraud: Forced Clicks and Invisible Windows” (2008) benedelman.org/news-100708

“PPC Platform Competition and Google’s ‘May Not Copy’ Restriction” (2008)  
benedelman.org/news-062708

“The Sears ‘Community’ Installation of ComScore” (2008) benedelman.org/news-010108

“False and Deceptive Pay-Per-Click Ads” (2006) benedelman.org/ppc-scams

“Spyware Showing Unrequested Sexually-Explicit Images” (2006) benedelman.org/news-062206

“How Yahoo Funds Spyware” (2005) benedelman.org/news-083105

“Domains Reregistered for Distribution of Unrelated Content” (2002)  
cyber.law.harvard.edu/people/edelman/renewals

## **CONGRESSIONAL TESTIMONY AND REGULATORY SUBMISSIONS**

Edelman, Benjamin, and Julian Wright. “Price Coherence in Online Platforms — Impact and Responses.” October 2015. (For the House of Lords inquiry into Online Platforms and the EU Digital Single Market.)

“Objections to Tentative Decision and Order to Show Cause (IATA 787).” June 2014. (Before the Department of Transportation.)

“Comments on Commitments in AT.39740 - Google.” May 2013. (Comments to European Commission - DG Comp.)

Edelman, Benjamin, and Bill Woodcock. “Towards Efficiencies in Canadian Internet Traffic Exchange.” September 2012. (Submission to Canadian Internet Registration Authority.)

“Towards Improvement in Singapore’s Transportation Efficiency and Environmental Impact.” October 2011. (Submission to the National Climate Change Secretariat of Singapore.)

“Deception in Post-Transaction Marketing Offers.” November 2009. Statement for the Record submitted to the United States Senate, Committee on Commerce, Science, and Transportation.

“Competition among Sponsored Search Services.” June 2008. Written testimony before United States House of Representatives Committee on the Judiciary Task Force on Competition and Antitrust.



“Spyware and Adware.” June 2008. Written and oral testimony before United States Senate Committee on Commerce, Science, and Transportation - Hearing on Impact and Policy Implications of Spyware on Consumers and Businesses.

“Intentionally Invalid Whois Data.” September 2003. Written and oral testimony before United States House of Representatives Committee on the Judiciary, Subcommittee on Courts, the Internet, and Intellectual Property - Oversight Hearing on Internet Domain Fraud & US Government’s Role in Ensuring Public Access to Accurate Whois Data.

## **SELECTED AWARDS AND HONORS**

- 2018 2018 SIGecom Test of Time Award from the ACM Special Interest Group on E-Commerce for “an influential paper or series of papers published between ten and twenty-five years ago that has significantly impacted research or applications exemplifying the interplay of economics and computation” (for “Internet Advertising and the Generalized Second Price Auction: Selling Billions of Dollars Worth of Keywords”)
- 2016 Institute for Competition Law’s Antitrust Writing Awards – Best Paper on Unilateral Conduct (for “Does Google Leverage Market Power Through Tying and Bundling?”)
- 2015 Case Center Award for Knowledge, Information and Communication Systems Management (for “Online Marketing at Big Skinny”)
- 2013 Prize in Game Theory and Computer Science from the Game Theory Society for “the best paper at the interface of game theory and computer science in the last decade” (for “Internet Advertising and the Generalized Second Price Auction: Selling Billions of Dollars Worth of Keywords”)
- 2011 Emerald Management Review Citation of Excellence Award for “50 best articles published by the world’s top 300 management journals” (for “Strategic Bidder Behavior in Sponsored Search Auctions”)
- 2011 ECCH Award for Outstanding Contribution to the Case Method – Strategy & General Management (for “Google Inc.”)
- 2009 Best Paper Award, Honorable Mention – The 11th International Conference on Electronic Commerce (for “Deterring Online Advertising Fraud through Optimal Payment in Arrears”)
- 2002 Thomas T. Hoopes Prize for Undergraduate Research; Seymour Harris Prize (for “The Effect of Editorial Discretion Book Promotion on Sales at Amazon.com” – undergraduate thesis)

## **SELECTED PRESENTATIONS**

Google. Digital Platforms. The Capitol Forum. Washington, DC. September 19, 2016.

Roundtable on the Regulatory Environment for Online Platforms. European Commission. Brussels, Belgium. December 14, 2015.

Spontaneous Private Deregulation. Jevons Institute for Competition Law and Economics. Washington, DC. November 3, 2015.

Online Shenanigans in 2015. UK Investor Show 2014. London. April 18, 2015.

Concentration in Online Markets. Big Ideas for CEE. Bratislava, Slovakia. April 17, 2015.

A New Code of Conduct for Affiliate Marketing? Affiliate Management Days. San Francisco, California. March 31, 2015.

Advertising Fraud. Digital Ad Security Summit. Los Angeles, California. November 21, 2014.

Competition in Online Markets: Status and Concerns. Centre for Economic Studies and Planning, School of Social Sciences, Jawaharlal Nehru University. New Delhi, India. November 18, 2014.

Bitcoin and Other New Payment Platforms. Central Bank of Kuwait Information Security Forum. Kuwait City. November 16, 2014.

Developments in Online Advertising. Association of Canadian Advertisers. Toronto, Canada. October 23, 2014.

Data Collection for Online Advertising. Privacy, Technology, and National Security. Harvard Law School. Cambridge, MA. October 15, 2014.

Google and Facebook. HBS Alumni Reunion. September 19, 2014.

The Illusion of Choice in Online Search. FairSearch. Toronto, Canada. September 11, 2014.

Price Coherence and Excessive Intermediation. Digital Seminar. Harvard Business School. September 10, 2014.

OpenTable and OpenTable Payments. PYMNTS Conference 2014. Cambridge, MA. August 14, 2014.

ShopRunner. PYMNTS Conference 2014. Cambridge, MA. August 12, 2014.

Price Coherence and Adverse Intermediation. Platform Strategy Research Symposium. Boston University. July 24, 2014.

Fixing the Internet. HBS Alumni Reunion. June 6, 2014.

Online Accountability. Federal Privacy and Data Working Group. The White House. April 11, 2014.

Online Shenanigans. UK Investor Show 2014. London. April 5, 2014.

Suggestions for Europe's Digital Agenda. Internet Today and Tomorrow. European People's Party - Internet Working Group. Brussels, Belgium. April 2, 2014.

Competition in Online Search. ICOMP Briefing. April 1, 2014. Berlin, Germany.

Developments in Search: Measurement and Competition. Digital Marketing Rockstars. Hamburg, Germany. February 21, 2014.

Affiliate Marketing. Digital Marketing Rockstars. Hamburg, Germany. February 20, 2014.

Platform Strategy in Online Markets: The Importance of Interoperability. Indian Institute of Corporate Affairs - Training Workshop on Competition Law & High-tech Markets. New Delhi, India. December 20, 2013.

Price Coherence and Adverse Intermediation. Multi-Sided Platforms Workshop. National University of Singapore. December 12, 2013.

Google and Facebook. HBS Alumni Webinar. October 24, 2013.

Google and Facebook. HBS Alumni Reunion. October 4, 2013.

Press Briefing on Google's Proposed Remedies. FairSearch. Brussels, Belgium. June 25, 2013.

Google's Profits from Unlawful Ads and Unlawful Content. National Association of Attorneys General - 2013 Summer Meeting. Boston, Massachusetts. June 18, 2013.

Dominance in Search: Harms and Remedies. Universidad Torcuato Di Tella. Buenos Aires, Argentina June 13, 2013.

Dominance in Search: Harms and Remedies. Centro Universitário de Brasília. Brasilia, Brazil. June 10, 2013.

Google and Facebook. HBS Alumni Reunion. June 7, 2013.

State of the Digital Dining Deal Roundtable. National Restaurant Association Show. Chicago, Illinois. May 20, 2013.

Google as Publisher ... And What To Do About It. Digital Innovators' Summit. Berlin, Germany. March 18, 2013.

Online Advertising Fraud. Reactions-Actions. London. November 15, 2012.

Google and Facebook. HBS Alumni Reunion. October 13, 2012.

Concerns in Search and Search Advertising. Fifth Annual Searle Center Conference on Antitrust Economics and Competition Policy. Northwestern University Law School, Chicago, Illinois. September 21, 2012.

Enforcement Response to Repeated and Foreseeable Privacy Breaches. Office of the Privacy Commissioner of Canada. Ottawa, Canada. August 30, 2012.

Dominance in Search: Harms and Remedies. Humboldt University Law School. Berlin, Germany. July 11, 2012.

Dominance in Search: Harms and Remedies. Publishers Association. Hamburg, Germany. July 11, 2012.

Google as Publisher. US-EU Media Seminar on the Future of Online Content. New York, New York. June 5, 2012

Google and Facebook. HBS Alumni Reunion. June 1, 2012.

Google's Dominance: Concerns and Remedies. Reactions-Actions. Brussels, Belgium. May 31, 2012.

Dominance in Search: Harms and Remedies. Economic Club of Canada. Toronto, Canada. May 29, 2012.

Affiliate Marketing Abuses. Affiliate Marketing Days. San Francisco, California. March 9, 2012.

Dominance in Search: Harms and Remedies. ICOMP Australia. Sydney, Australia. February 20, 2012.

Building a Global Internet Company: Driving Traffic to Your Site. WAT Summit. Mumbai, India. January 20, 2012.

Future of Online Markets. CIRC. New Delhi, India. January 18, 2012.

Market Design for IPv4 Addresses. Seventh Annual Workshop on Internet & Network Economics. Singapore. December 13, 2011.

Google and Facebook. HBS Alumni Reunion. September 23, 2011.

Evaluating Groupon-Style Discount Offers. Market Platform Dynamics - Payment Innovations Institute. June 24, 2011.

Issues at the Boundary of Search and Search Advertising. The Law & Economics of Search Engines and Online Advertising. George Mason University School of Law - Law & Economics Center. June 16, 2011.

Personal Rapid Transport. Future of Urban Mobility Group, Massachusetts Institute of Technology. April 15, 2011.

Labeling Advertisements in Internet Search. McCarthy Symposium on Trademark Law & Its Challenges in 2011. Redmond, Washington. February 3, 2011.

Rights and Responsibilities in Search and Search Advertising. International Advertising Association - Digital Download. Tokyo, Japan. December 7, 2010.

Rights and Responsibilities in Search and Search Advertising. International Advertising Association - Digital Download. Sydney, Australia. December 2, 2010.

Labeling Advertisements in Internet Search. University of San Francisco School of Law - Center for the Empirical Study of Trademarks. San Francisco, California. November 17, 2010.

Running Out of Integers: The Impending Scarcity of IPv4 Addresses and What To Do About It. Market Design, Harvard University Department of Economics. October 22, 2010.

Market Concentration in Web Search and Online Advertising. Technology and Governance 2.0. Kennedy School of Government. September 23, 2010.

Market Concentration in Internet Search: Implications of the Proposed Transaction Between Google and Yahoo Japan. The Future Role of Competition Law in Internet and Advertising: The Effects and Consequences of a Google - Yahoo Japan Monopoly. Tokyo, Japan. August 5, 2010.

Unauthorized Redistribution of Third-Party Content: Strategies and Remedies. CEPIC | Centre of the Picture Industry - Congress. Dublin, Ireland. June 12, 2010.

The Price and Non-Price Implications of Market Concentration in Internet Search. Searle Research Symposium on the Economics and Law of Internet Search. Northwestern University School of Law. June 10, 2010.

The Price and Non-Price Implications of Market Concentration in Internet Search. The Law and Economics of Search and Online Advertising. Tilburg Law & Economics Center. Tilburg, Netherlands. May 27, 2010.

Fixing Affiliate Marketing. Affiliate Dag 2010. Utrecht, Netherlands. May 27, 2010.

Cybercrime and Consumer Protection. International Judicial Academy. Washington, DC. May 18, 2010.

Teaching "Ad Classification at Right Media." IT Teaching Workshop - Georgia Tech College of Management. Atlanta, Georgia. May 14, 2010.

Advertisers' Rights in the Online Economy. ANA Law & Public Policy Conference. Washington, DC. March 18, 2010.

Advertisers' Rights in the Online Economy. International Advertising Association - Digital Download. Beijing, China. November 16, 2009.

Advertisers' Rights in the Online Economy. International Advertising Association - Digital Download. Seoul, Korea. November 13, 2009.

Advertisers' Rights in the Online Economy. International Advertising Association - Digital Download. Tokyo, Japan. November 10, 2009.

Detecting & Deterring Online Advertising Fraud. STIET Program, University of Michigan. Ann Arbor, Michigan. October 29, 2009.

Running Out of Integers: The Impending Scarcity of IPv4 Addresses and What To Do About It. Market Design, Harvard University Department of Economics. October 16, 2009.

Advertisers' Rights in the Online Economy. International Advertising Association - Digital Download. London. October 8, 2009.

Advertisers' Rights in the Online Economy. ICOMP Business Roundtable. Brussels, Belgium. October 6, 2009.

Towards A Bill of Rights for Online Advertisers. Advertising Week. New York, New York. September 21, 2009.

Online Advertising: Consumer Protection and Advertisers' Rights. Tech Forum & Seoul National University Law & Technology Seminar. Seoul, Korea. August 18, 2009.

The Google Book Search Settlement. Public discussion at the Ministry of Culture, Sports & Tourism. Seoul, Korea. August 18, 2009.

Adverse Selection in Online "Trust" Authorities. The 11th International Conference on Electronic Commerce. Taipei, Taiwan. August 15, 2009.

What You Need to Know about Advertising Fraud. International Advertising Association - Digital Download Update. Sydney, Australia. August 12, 2009.

Online Advertisers' Rights. Australian Interactive Media Industry Association Forum: Advertisers' Rights and Consumer Privacy. Sydney, Australia. August 11, 2009.

Competition in Online Advertising. HBS First Annual Digital Economy Symposium. June 19, 2009.

Advertising Transparency: Knowing What You're Getting and Getting What You Want. ICOMP Advertiser Workshop. London, United Kingdom. June 17, 2009.

Advertisers' Rights in the Online Economy. Microsoft Search Summit. Seattle, Washington. June 4, 2009.

Research Opportunities in Online Advertising. NBER Market Design Working Group Meeting. Cambridge, Massachusetts. May 16, 2009.

Running Out of Numbers: Scarcity of IP Addresses and What To Do About It. AMMA 2009: The First Conference on Auctions, Market Mechanisms and Their Applications. Boston, Massachusetts. May 8, 2009.

Unexpected Challenges in Measuring Online Advertising ROI. International Advertising Association - Digital Download. Singapore. April 2, 2009.

Unexpected Challenges in Measuring Online Advertising ROI. International Advertising Association - Digital Download. Mumbai, India. March 26, 2009.

Unexpected Challenges in Measuring Online Advertising ROI. International Advertising Association - Digital Download. Madrid, Spain. March 12, 2009.

Unexpected Challenges in Measuring Online Advertising ROI. International Advertising Association - Digital Download. Paris, France. March 10, 2009.

Securing Online Advertising: Rustlers and Sheriffs in the New Wild West. Research in Action - Harvard Business School. March 4, 2009.

Deterring Online Advertising Fraud Through Optimal Payment in Arrears. Financial Cryptography and Data Security '09. Barbados. February 23, 2009.

The Darker Side of Online Advertising. Keynote. Trademark Law and the Internet. International Trademark Association. San Francisco, California. February 10, 2009.

Discussion. "Online Advertising Markets." 2009 Meetings of the Allied Social Science Associations. San Francisco, California. January 3, 2009.

The Darker Side of Online Advertising. Center for Research on Computation and Society, Harvard School of Engineering and Applied Sciences. December 3, 2008.

Running Out of Integers: The Impending Scarcity of IPv4 Addresses and What To Do About It. Market Design, Harvard University Department of Economics. October 24, 2008.

Running Out of Integers: The Impending Scarcity of IPv4 Addresses and What To Do About It. Negotiation, Organizations & Markets Seminar, Harvard Business School. October 8, 2008.

Running Out of Integers: The Impending Scarcity of IPv4 Addresses and What To Do About It. Stanford Institute for Theoretical Economics. Stanford University. June 23, 2008.

Impact and Policy Implications of Spyware on Consumers and Businesses. US Senate Committee on Commerce, Science, and Transportation. June 11, 2008.

Who Engages in Illicit Gaming, and Why? Evidence from Inflated Download Counts of SSRN Working Papers. Negotiation, Organizations & Markets Work In Progress Lunch, Harvard Business School. March 19, 2008.

Running Out of Integers: The Impending Scarcity of IPv4 Addresses and What To Do About It. Market Design, Harvard University Department of Economics. March 14, 2008.

Proposed IPv4 Transfer Policies. Cisco Workshop on Address Allocation Models for the Internet. San Jose, California. March 3-4, 2008.

Running Out of Integers: The Coming Scarcity of IPv4 Addresses and What Can Be Done About It. Market Design Workshop, Harvard Business School. November 16, 2007.

Bidding for Sponsored Link Advertisements at Internet Search Engines. Operations and Information Management Department, The Wharton School of the University of Pennsylvania. October 23, 2007.

Transferable IPv4 Addresses and the IPv6 Transition. "IP Markets?" ARIN XX. Albuquerque, New Mexico. October 17, 2007.

The Spyware Ecosystem: Business Models and Ongoing Activities. National Association of Attorneys General - Conference on Spyware and Phishing. University of Mississippi. August 28, 2007.

Current Spyware Practices. Spyware 2010. Defcon. Las Vegas, Nevada. August 3, 2007.

Current Spyware Practices. Spyware 2010. Black Hat. Las Vegas, Nevada. August 2, 2007.

Bidding for Sponsored Link Advertisements at Internet Search Engines. Operations, Information and Technology Workshop, Graduate School of Business, Stanford University. January 25, 2007.

Bidding for Sponsored Link Advertisements at Internet Search Engines. Negotiation, Organizations & Markets Workshop, Harvard Business School. December 6, 2006.

Bidding for Sponsored Link Advertisements at Internet Search Engines. Seminar on Sponsored Search, Department of Computer and Information Science, University of Pennsylvania. November 27, 2006.

Adverse Selection in Online “Trust” Authorities. Department of Computer and Information Science, University of Pennsylvania. Philadelphia, Pennsylvania. November 27, 2006.

Bidding for Sponsored Link Advertisements at Internet Search Engines. Marketing Workshop, Harvard Business School. November 6, 2006.

Adverse Selection in Online “Trust” Authorities. Marketing Workshop, Harvard Business School. October 4, 2006.

Bidding for Sponsored Link Advertisements at Internet Search Engines. Research in Industrial Organization - Seminar. Harvard University, Department of Economics. September 20, 2006.

Adverse Selection in Online “Trust” Authorities. The Fifth Workshop on the Economics of Information Security. University of Cambridge. Cambridge, United Kingdom. June 28, 2006.

Safety at Internet Search Engines. The Rising Power of Search Engines on the Internet. University of Leipzig. Berlin, Germany. June 26, 2006.

Fraud and Other Pitfalls in Search Engine Advertising. “The Google Effect” - Gerson Lehrman Group. Boston, Massachusetts. June 8, 2006.

Where Does Spyware Come From? - “Why” - Spyware Revenue Sources. Anti-Spyware Coalition Public Workshop. Ottawa, Canada. May 16, 2006.

Understanding Spyware: Its Effects on Your Brand and Marketing Pound. Perfilite Technologies Points of Interest Speakeasy 2006. London, United Kingdom. May 11, 2006.

Problems and Solutions. Spyware Workshop, Information Law Institute, NYU Law School. March 17, 2006.

Adverse Selection in Online “Trust” Authorities. Research in Industrial Organization - Seminar. Harvard University, Department of Economics. March 8, 2006.

Adverse Selection in Online “Trust” Authorities. EconCS Group, Division of Engineering and Applied Science, Harvard University. March 6, 2006.

Spyware. ABCD Committee, Harvard University. February 23, 2006.

Current Installation Methods; Advertisement Syndication as a Spyware Revenue Source. Anti-Spyware Coalition Public Workshop. Washington, DC. February 9, 2006.

Understanding Spyware and Its Effects on Affiliate Marketing. Affiliate Summit. Las Vegas, Nevada. January 9, 2006.

Understanding and Stopping Spyware. Ziff Davis Internet eSeminars. December 7, 2005.

Understanding Spyware and Its Effects on Your Marketing Dollars and Your Brand. ad:tech. New York, New York. November 8, 2005.

Analyzing Site Safety. Market Design Workshop, Harvard Business School. November 4, 2005.

Effectiveness and Enforcement of CAN-SPAM. Federal Trade Commission. July 21, 2005.

Spyware Revenue Sources. Gerson Lehrman Group - Briefing. New York, New York. June 15, 2005.

The Spyware Problem: Why It Matters and How Information Security Officers Can Help. New York State Office of Cyber-Security & Critical Infrastructure Coordination. Albany, New York. June 2, 2005.

Understanding Spyware & Adware. Conversations with the Blogosphere, Analyst Access Conference Call Series. UBS. May 6, 2005.

Defining Spyware and Adware. The Antispyware Workshop. c|net download.com. San Francisco, California. May 3, 2005.

Spyware. Alaska House Judiciary Committee. April 27, 2005. By teleconference.

Spyware. Alaska House Labor and Commerce Committee. April 25, 2005. By teleconference.

Towards a Theory of Intermediary Liability. The John M. Olin Center for Law, Economics, and Business - Student Presentation Series. Harvard Law School. Cambridge, Massachusetts. April 14, 2005.

Spyware. Alaska Senate Judiciary Committee. April 14, 2005. By teleconference.

Spyware: Defining the Problem, and Legislative Responses. National Association of State Chief Information Officers. Teleconference. March 4, 2005.

Click Fraud: A Legal Look. Search Engine Strategies. New York, New York. March 2, 2005.

Bidding for Sponsored Link Advertisements at Internet Search Engines. Research in Industrial Organization - Seminar. Harvard University, Department of Economics. February 23, 2005.

An Overview of Software Downloads: Spyware, Adware, Stealware & Thiefware. eComXpo. February 17, 2005.

Spyware: How They Sneak onto Your Computer, How They Make Money, and What You Can Do to Stop Them. Cabot House, Food for Thought. December 8, 2004.

Spyware: Effects, "Consent," and Legislative Responses. State Government Affairs Council, Foundation Leaders' Policy Conference. Dana Point, California. November 22, 2004.

Spyware on Corporate Networks: Assessing the Risks and Costs. Spyware and the Enterprise: A Growing Threat. Business4Site. Los Angeles, California. June 15, 2004.

Empirical Research on Sites Omitted from Google Search Results. "Gatekeepers of the Web: The Hidden Power of Search Engine Technology." Computers, Freedom & Privacy Conference. Berkeley, California. April 21, 2004.

Design Challenges in CAN-SPAM Do-Not-Email Registry. Federal Trade Commission (by teleconference). March 3, 2004.

Measuring ISP Response to VeriSign Site Finder. Security and Stability Advisory Committee, ICANN. Washington, DC. October 15, 2003.

Intentionally Invalid Whois Data. US House of Representatives Committee on the Judiciary Subcommittee on Courts, the Internet, and Intellectual Property Oversight Hearing on Internet Domain Fraud & US Government's Role in Ensuring Public Access to Accurate Whois Data. September 4, 2003.



Internet Filtering Worldwide: The Technologies of Filtering and Their Unexpected Consequences. UNDP Global Meeting on ICT for Development. Ottawa, Canada. July 10, 2003.

Internet Filtering Worldwide: The Technologies of Filtering and Their Unexpected Consequences. World Press Freedom Committee Internet Press Freedom Conference. New York, New York. June 27, 2003.

Internet Filtering Worldwide: How to Respond When Your Sites and Emails are Blocked. American Chamber of Commerce in Japan. Tokyo, Japan. June 23, 2003.

Filtering Spam: New Perspectives on the False-Positive/False-Negative Tradeoff. Oxford Internet Institute. Oxford, United Kingdom. June 18, 2003.

Internet Filtering Worldwide: The Technologies of Filtering and Their Unexpected Consequences and Influence of Code and Companies on the Freedom of the Internet. OSCE Conference on Freedom of the Media and the Internet. Amsterdam, Netherlands. June 13, 2003.

Internet Filtering Worldwide: The Technologies of Filtering and Their Unexpected Consequences. ISOC Turkey. Istanbul, Turkey. June 11, 2003.

Internet Filtering Worldwide: The Technologies of Filtering and Their Unexpected Consequences. China and the Internet Conference, USC Annenberg School for Communication. May 30, 2003.

“Adware” and “Spyware”: Research Methods. Berkman Center Fellows Lunch. May 7, 2003.

Edelman v. N2H2 and Internet Filtering Research Generally. Copyright Law and Digital Works, University of Kansas School of Law (by teleconference). April 10, 2003.

Internet Filtering Worldwide: The Technologies of Filtering and Their Unexpected Consequences. Computers, Freedom & Privacy. New York, New York. April 3, 2003.

China and the Internet: A New Revolution? Carnegie Endowment for International Peace Lunch Panel. Washington, DC. March 14, 2003.

Internet Filtering: Implementations, Accuracy, and Best Practices. APRICOT 2003. Taipei, Taiwan. February 27, 2003.

Internet Filtering & Transparency. With Jonathan Zittrain. Berkman Center Fellows Lunch. February 13, 2003.

Internet Filtering Roundtable. Voice of America / International Broadcasting Internet Bureau / Radio Free Asia. Washington, DC. December 17, 2002.

Internet Filtering Worldwide. Information Society Project, Yale Law School. New Haven, Connecticut. December 16, 2002.

Expert Research in CIPA and Goals in Edelman v. N2H2. Technology and Liberty Program Project Highlights, ACLU National Policy Review. Washington, DC. October 8, 2002.

Pornography and Jurisdiction & Zoning. ILAW Conference. June 1-5, 2002. With Jonathan Zittrain.

Internet & Society. Harvard Law School, Spring 2002. Substance and technology in various sessions, including domain names, Internet filtering, television retransmission, and geolocation.

Mock legislative session re strengths and shortcomings of filtering software. Kennedy School of Government. March 20, 2002.

The Effect of Editorial Discretion Book Promotion on Sales at Amazon.com. Research in Microeconomics. Harvard University, Department of Economics. February 15, 2002.

Design and Constraints of Internet Filtering Software. Federal Communications Commission. Washington, DC. February 16, 2001.

### **PROGRAMMING EXPERIENCE**

Microsoft Visual Basic (since VB3 in 1993), VB.NET

Mathworks MATLAB, Stata, SPlus / R

PHP, Python