December 2011

Curriculum Vitae

Michael D. Smith

ADDRESS School of Information Systems and Management Phone: (412) 268-5978 Heinz College, Carnegie Mellon University Fax: (412) 268-5338 4800 Forbes Avenue Web: http://www.heinz.cmu.edu/~mds Pittsburgh, PA 15213 E-mail: mds@cmu.edu **ACADEMIC POSITIONS** 2011-Present **Carnegie Mellon University** Pittsburgh, PA Professor of Information Technology and Marketing Heinz College, School of Information Systems and Management, and Tepper School of Business 2009-2011 **Carnegie Mellon University** Pittsburgh, PA Associate Professor of Information Technology and Marketing Heinz College, School of Information Systems and Management, and Tepper School of Business **Summer 2010 London Business School** London, UK Visiting Associate Professor of Management Science and Operations 2006-2009 **Carnegie Mellon University** Pittsburgh, PA Dean's Career Development Chair, Associate Professor of Information Technology and Marketing Heinz College, School of Information Systems and Management, and **Tepper School of Business** 2000-2006 **Carnegie Mellon University** Pittsburgh, PA Assistant Professor of Information Technology and Marketing H. John Heinz III School of Public Policy and Management and **Tepper School of Business** 1996-2000 Cambridge, MA Massachusetts Institute of Technology **Research** Assistant Center for eBusiness@MIT Center for Coordination Science **EDUCATION** 1996-2000 **MIT Sloan School of Management** Cambridge, MA Ph.D. in Management Science and Information Technology Dissertation Title: Essays on Structure and Competition in Electronic Markets

Dissertation Committee: Erik Brynjolfsson (Chair), John Little, Thomas Malone

1993-1996 University of Maryland at College Park Master of Science in Telecommunications Multi-disciplinary program in electrical engineering, business, and policy aspects of telecommunications GPA: 4.0/4.0 Thesis Title: An Analysis of Internet Architecture and Services Thesis Advisor: Curt Grimm 1986-1991 University of Maryland at College Park **College Park, MD** Bachelor of Science in Electrical Engineering GPA: 3.9/4.0, Summa Cum Laude Valedictorian and Commencement Speaker, College of Engineering

INDUSTRY POSITIONS

1995-1996 Booz · Allen & Hamilton McLean, VA Senior Consultant, Telecommunications Client Service Team Evaluated voice, video, and data communication needs for clients. Performed laboratory experiments using various LAN/WAN technologies for client. 1993-1995 **GTE Systems Corporation Rockville**, MD Member Technical Staff, Advanced Telecommunications Systems Group Lead technical member of a team assisting in the development of new cellular fraud management products for GTE. Lead knowledge engineer for Telecommunications Network Modeling System. 1991-1993 **GTE Service Corporation** Stamford, CT Engineering Associate Completed management training program for GTE's top 20 engineering recruits. Program consists of three assignments in different components of GTE Corporation. Assignments detailed below: Network Applications Specialist, GTE Northwest Telephone Operations. Conducted strategic

- marketing analysis of selected major accounts in GTE's Northwest sales region.
- Product Specialist, Digital Television System, GTE Spacenet, McLean, Virginia. Assisted in product management of digital satellite television system.
- Research Engineer, GTE Laboratories, Waltham, Massachusetts. Performed experiments using Artificial Intelligence to dynamically allocate wireless communication channels.

TEACHING

95-722 - Digital Transformation, CMU Masters of Information Systems Management Program, Fall 2005-Fall 2011. (Teaching Excellence Award, 2009)

95-732 - Interactive Marketing: Technology in the Marketing Mix, CMU Masters of Information Systems Management Program, Spring 2001-Spring 2011. (Teaching Excellence Award, 2004)

70-488 – Internet Marketing, CMU Graduate School of Industrial Administration, Spring 2001-Spring 2011. (Outstanding Faculty Award, National Society of Collegiate Scholars, 2002.)

95-849 - Advanced Topics in Interactive Marketing, CMU Masters of Information Systems Management Program, Fall 2005-Spring 2007.

90-914 – Ph.D. Seminar: Analyzing and Designing Efficient Electronic Markets, Fall 2004.

95-730 - Electronic Commerce, CMU Masters of Information Systems Management Program, Spring 2001-04.

90-712 - Public Policy Issues: Electronic Commerce, Spring 2003 (Co-Taught with Karen Clay).

College Park, MD

BMIS 3022 – Economics and Information Systems, PhD Seminar, University of Pittsburgh Katz School of Business, Spring 2003 (Co-Taught with Chris Kemerer).

45-821 – Internet Marketing, MBA Program, CMU Graduate School of Industrial Administration, Spring 2002 (Co-Taught with Alan Montgomery).

15.567 – Electronic Commerce and Marketing, MIT Sloan School of Management, Head Teaching Assistant, Spring 1999.

An Overview of Network Planning, Session Instructor, USAID Telecommunications Training for Arab Republic of Egypt National Telecommunications Organization, Cairo, Egypt, May 1996.

Financial Analysis in Emerging Telecommunications Markets, Session Instructor, USAID Telecommunications Privatization Training, Warsaw, Poland, December 1995.

Refereed Journal Articles

Liu, Charles, Chris Kemerer, Sandra Slaughter, Michael D. Smith. 2011. Standards Competition in the Presence of Digital Conversion Technology: An Empirical Analysis of the Flash Memory Card Market. *Management Information Systems Quarterly*, Forthcoming.

Garg, Rajiv, Michael D. Smith, Rahul Telang. 2012. Measuring Information Diffusion in an Online Community. *Journal of Management Information Systems*, **28**(2), Forthcoming.

Agarwal, Ashish, Kartik Hosanagar, Michael D. Smith. 2011. Location, Location, Location: An Analysis of Profitability and Position in Online Advertising Markets. *Journal of Marketing Research*, **48** 1057-1073.

Liu, Charles, Esther Gal-Or, Chris Kemerer, Michael D. Smith. 2011. Compatibility and Proprietary Standards: The Impact of Conversion Technologies in IT-Markets with Network Effects. *Information Systems Research*, **22**(1) 188-207.

Brynjolfsson, Erik, Yu Hu, Michael D. Smith. 2010. Long Tails and Superstars: The Effect of IT on Product Variety and Sales Concentration Patterns. *Information Systems Research* 20th Anniversary Special Issue, **21**(4) 736-747.

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.

Smith, Michael D., Rahul Telang. 2010. Piracy or Promotion? The Impact of Broadband Internet Penetration on DVD Sales. *Information Economics and Policy*, Special Issue on the Economics of Digital Piracy, **21** 289-298.

Tang, Zhulei, Alan Montgomery, Michael D. Smith. 2010. The Impact of Shopbot Use on Prices and Price Dispersion: Evidence from Online Book Retailing. *International Journal of Industrial Organization*, **28** 579-590.

Brynjolfsson, Erik, Astrid A. Dick, Michael D. Smith. 2010. A Nearly Perfect Market? Differentiation Versus Price in Consumer Choice. *Quantitative Marketing and Economics*, **8**(1) 1-33.

Montgomery, Alan, Michael D. Smith. 2009. Prospects for Personalization on the Internet. *Journal of Interactive Marketing*, **23**(2) 130-137.

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

Hosanagar, Kartik, John Chuang, Ramayya Krishnan, Michael D. Smith. 2008. Service Adoption and Pricing of Content Delivery Network Services. *Management Science*, **54**(9) 1579-1593.

Tang, Zhulei, Yu Hu, Michael D. Smith. 2008. Gaining Trust Through Online Privacy Protection: Self Regulation, Mandatory Standards, or Caveat Emptor. *Journal of Management Information Systems*, **24**(4) 152-173.

Krishnan, Ramayya, Michael D. Smith, Zhulei Tang, Rahul Telang. 2007. Digital Business Models for Peer-to-Peer Networks: Analysis and Economic Issues. *Review of Network Economics*, **6**(2) 194-213.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2006. Internet Exchanges for Used Books: An Empirical Analysis of Product Cannibalization and Welfare Impact. *Information Systems Research*, **17**(1) 3-19. (Runner-up for Best Published Paper in *Information Systems Research* in 2006.)

Asvanund, Atip, Karen Clay, Ramayya Krishnan, Michael D. Smith. 2004. An Empirical Analysis of Network Externalities in Peer-To-Peer Music Sharing Networks. *Information Systems Research*, **15**(2) 155-174.

Krishnan, Ramayya, Michael D. Smith, Rahul Telang. 2003. The Economics of Peer-To-Peer Networks. *Journal of Information Technology Theory and Applications*, **5**(3) 31-44.

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.

Smith, Michael. 2002. The Impact of Shopbots on Electronic Markets. *Journal of the Academy of Marketing Science*, **30**(4) 442-450.

Smith, Michael, Erik Brynjolfsson. 2001. Customer Decision Making at an Internet Shopbot: Brand Still Matters. *The Journal of Industrial Economics*, **49**(4) 541-558.

Brynjolfsson, Erik, Michael Smith. 2000. Frictionless Commerce? A Comparison of Internet and Conventional Retailers. *Management Science*, **46**(4) 563-585.

REFEREED CONFERENCE PROCEEDINGS

Cho, Deagon, Michael Smith, Rahul Telang. 2012. Live Show Everywhere: Distribution Dynamics and Internet Influence on Concert Location. *Proceedings of the 45th Hawaii International Conference on Systems Science* (HICSS-45), Hawaii, January 4-7.

Agarwal, Ashish, Kartik Hosanager, Michael D. Smith. 2011. Sponsored Search: Do Organic Results Help or Hurt Advertising Performance and Under What Conditions? *Proceedings of the 32nd International Conference on Information Systems* (ICIS), Shanghai, China, December 4-7.

Garg, Rajiv, Michael Smith, Rahul Telang. 2011. Estimating Diffusion of Music in an Online Social Network. *Proceedings of the 44th Hawaii International Conference on Systems Science* (HICSS-44), Hawaii, January 4-7.

Chen, Pei-yu, Samita Dhanasobhon, Michael D. Smith. 2007. An Analysis of the Differential Impact of Reviews and Reviewers at Amazon.com. *Proceedings of the 28th International Conference on Information Systems* (ICIS), Montreal, Quebec, Canada, December 9-12.

Smith, Michael D., Rahul Telang. 2007. Analysis of the Impact of Movie Broadcasts on DVD Sales and Internet Piracy. *Proceedings of the 28th International Conference on Information Systems* (ICIS), Montreal, Quebec, Canada, December 9-12.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2004. Price Elasticities and Social Welfare in Secondary Electronic Markets. *Proceedings of the 25th International Conference on Information Systems* (ICIS), Washington, D.C., December 12-15. (Nominee, Best Paper Award.)

Krishnan, Ramayya, Michael Smith, Zhulei Tang, Rahul Telang. 2004. The Virtual Commons: Why Free-Riding Can Be Tolerated in File Sharing Networks. *Proceedings of the 37th Hawaii International Conference on System Sciences* (HICSS-37), Hawaii, January 5-8. (Runner-up, Best Paper Award.)

Hosanagar, Kartik, John Chuang, Ramayya Krishnan, Michael D. Smith. 2004. Optimal Pricing of Content Delivery Network Services. *Proceedings of the 37th Hawaii International Conference on System Sciences* (HICSS-37), Hawaii, January 5-8.

Farag, Neveen, Michael Smith, M.S. Krishnan. 2003. The Consumer Online Purchase Decision: A Model of Consideration Set Formation and Buyer Conversion Rate Across Market Leaders and Market Followers.

Proceedings of the 24th International Conference on Information Systems (ICIS), Seattle, Washington, December 14-17.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2003. Internet Exchanges for Used Books: Welfare Implications and Policy Issues. *Proceedings of the 24th International Conference on Information Systems* (ICIS), Seattle, Washington, December 14-17.

Farag, Neveen, Michael Smith, M.S. Krishnan. 2003. Converting Visitors to Buyers via the Online Experience: An Empirical Evaluation. *Proceedings of the 2003 Americas Conference on Information Systems* (AMCIS), Tampa, FL, August 4-6.

Asvanund, Atip, Karen Clay, Ramayya Krishnan, Michael Smith. 2002. An Empirical Analysis of Network Externalities in Peer-To-Peer Music Sharing Networks. *Proceedings of the 23rd International Conference on Information Systems* (ICIS), Barcelona, Spain, December 15-18. (Runner-up, Best Paper Award)

Krishnan, Ramayya, Michael D. Smith, Zhulei Tang, Rahul Telang. 2002. The Virtual Commons: Why Free-Riding Can Be Tolerated in File Sharing Networks. *Proceedings of the 23rd International Conference on Information Systems* (ICIS), Barcelona, Spain, December 15-18.

Franklin, Judy, Michael Smith, Jay Yun. 1992. Learning Channel Allocation Strategies in Real Time, *Proceedings of the 42nd IEEE Vehicular Technology Conference*, Denver, Colorado, May.

PROFESSIONAL JOURNALS

Brynjolfsson, Erik, Yu "Jeffrey" Hu, Michael D. Smith. 2006. From Niches to Riches: The Anatomy of the Long Tail. *Sloan Management Review*, **47**(4 Summer) 67-71.

BOOK CHAPTERS

Clay, Karen, Ramayya Krishnan, Michael D. Smith. 2001. The Great Experiment: Pricing on the Internet, Lowry, Cherrington, and Watson, eds. *Handbook of Electronic Commerce in Business and Society*. CRC Press, New York, 139-152.

Smith, Michael, Joseph Bailey, Erik Brynjolfsson. 2000. Understanding Digital Markets: Review and Assessment, Brynjolfsson and Kahin, eds. *Understanding the Digital Economy*, MIT Press, Cambridge, MA, 99-136.

PATENT

Smith, Michael, Allen Bonde, Gregory Catherine, Rosemarie Napolitano, Diane Wolfe. 1998. "Fuzzy logic-based evidence fusion tool for network analysis," US Patent Number 5,787,235.

WORKING PAPERS AND MIMEOS

Agarwal, Ashish, Kartik Hosanager, Michael D. Smith. 2011. Sponsored Search: Do Organic Results Help or Hurt Advertising Performance and Under What Conditions?

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2011. Information Discovery and the Long Tail of Motion Picture Content. (http://ssrn.com/abstract=1871090)

Hu, Yu, Michael D. Smith. 2011. The Impact of eBook Distribution on Print Sales: Analysis of a Natural Experiment.

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2011. The Broadcast Window Effect: Cross-channel Substitution Patterns for Media Content.

Dhanasobhon, Samita, Michael D. Smith, Rahul Telang. 2011. Crossing Streams: The Impact of Free Online Video Streaming on Physical Sales and Internet Piracy.

Brynjolfsson, Erik, Yu Hu, Michael Smith. 2010. The Longer Tail: The Changing Shape of Amazon's Sales Distribution Curve. (http://ssrn.com/abstract=1679991)

Ma, Liye, Alan Montgomery, Michael D. Smith, Param Singh. 2010. Pre-Release Movie Piracy and Box Office Sales: Estimates and Policy Implications. (<u>http://ssrn.com/abstract=1782924</u>)

Koh, Tat Koon, Mark Fichman, Michael D. Smith. 2010. Courting Two-Timers: Multi-Homing Users' Preferences for Two-Sided Exchange Networks. (http://ssrn.com/abstract=1635615)

Chen, Pei-yu, Samita Dhanasobhon, Michael D. Smith. 2009. All Reviews are Not Created Equal: The Disaggregate Impact of Reviews and Reviewers at Amazon.com. (<u>http://ssrn.com/abstract=918083</u>)

Smith, Michael D., Rahul Telang. 2008. Internet Exchanges for Used Digital Goods. *Mimeo*. (http://ssrn.com/abstract=1086358)

Krishnan, Ramayya, Michael D. Smith, Zhulei Tang, Rahul Telang. 2008. The Virtual Commons: Why Free-Riding Can Be Tolerated in File Sharing Networks. *Mimeo*. (http://ssrn.com/abstract=450241)

Asvanund, Atip, Ramayya Krishnan, Michael D. Smith, Rahul Telang. 2006. Interest-based Self-organizing Peer-to-Peer Networks: A Club Economics Approach. *Mimeo*. (http://ssrn.com/abstract=585345)

PAPERS IN CONFERENCE PROGRAMS

Hu, Yu, Michael D. Smith. 2012. The Impact of eBook Distribution on Print Sales: Analysis of a Natural Experiment. *University of Utah Winter Conference on Business Intelligence*, Snowbird, UT, March 1-3.

Danaher, Brett, Michael D. Smith, Rahul Telang. 2011. The Effect of Graduated Response Anti-Piracy Laws on Media Sales: Evidence from an Event Study in France. *Workshop on Information Systems and Economics (WISE)*, Shanghai, China, December 7-9.

Hu, Yu, Michael D. Smith. 2011. The Impact of eBook Distribution on Print Sales: Analysis of a Natural Experiment. *INFORMS Annual Meetings*, Digital Channel and IT Usage Track, Charlotte, NC, November 13-16.

Location, Location and Location: An Analysis of Profitability and Position in Online Advertising. *INFORMS Annual Meetings*, Washington, DC, October 12-15.

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2011. Information Discovery and the Long Tail of Motion Picture Content. *National Bureau of Economic Research*, Summer Institute, Economics of Information Technology and Digitization Workshop, Cambridge, Massachusetts, July 22-23.

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2011. Channels and Conflict: Effective Marketing Strategies for Internet Digital Distribution Channels. *Marketing Science Conference*, Internet and Interactive Media Track, Houston, Texas, June 9-10.

Agarwal, Ashish, Kartik Hosanagar, Michael D. Smith. 2011. Sponsored Search: Do Organic Results Help or Hurt the Performance and Under What Conditions? *Second Annual Conference on Internet Search and Innovation*, Northwestern University, School of Law, Evanston, Illinois, June 7-8.

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2010. The Broadcast Window Effect: Information Discovery and Cross-Channel Substitution Patterns for Media Content. *Workshop on Information Systems and Economics (WISE)*, St. Louis, Missouri, December 12-13.

Agarwal, Ashish, Kartik Hosanagar, Michael D. Smith. 2010. Sponsored Search: Do Organic Results help or hurt Performance. *Workshop on Information Systems and Economics (WISE)*, St. Louis, Missouri, December 12-13.

Fichman, Mark, Tat Koon Koh, Michael D. Smith. 2010. Multi-homing Users' Preferences for Two-Sided Exchange Networks. *Conference on Information Systems and Technology (CIST)*, Austin, Texas, November 6-7.

Fichman, Mark, Tat Koon Koh, Michael D. Smith. 2010. The More the Merrier: Intra-Network Externalities and Multi-Homing in 2-Sided Markets. *Sixth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR)*, Austin, Texas, June 5-6.

Kumar, Anuj, Michael D. Smith, Rahul Telang. 2010. Where'd They Go? Cross-Channel Media Consumption Patterns During Broadcast Blackout Windows. *Sixth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR)*, Austin, Texas, June 5-6.

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2010. Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy. *Industries Studies Conference, Industry Studies Association Meetings*, Chicago, Illinois, May 6-7.

Garg, Rajiv, David Krackhardt, Michael Smith, Rahul Telang. 2009. Estimating Diffusion of Music in an Online Social Network. *Winter Conference on Business Intelligence*, David Eccles School of Business, University of Utah, Salt Lake City, Utah, March 11-13.

Ma, Liye, Alan Montgomery, Param Singh, Michael D. Smith. 2009. Pre-Release Movie Piracy and Box Office Revenue: Estimates and Policy Implications. *Workshop on Information Systems and Economics (WISE)*, Phoenix, Arizona, December 14-15.

Brynjolfsson, Erik, Jeffrey Hu, Michael D. Smith. 2009. A Longer Tail?: Estimating The Shape of Amazon's Sales Distribution Curve in 2008. *Workshop on Information Systems and Economics (WISE)*, Poster Session, Phoenix, Arizona, December 14-15.

Garg, Rajiv, Michael D. Smith, Rahul Telang. 2009. Peer Influence and Information Diffusion in Online Networks: An Empirical Analysis. *Conference on Information Systems and Technology (CIST)*, San Diego, California, October 10-11.

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2009. Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy. *NBER Workshop on Information Technology and Economics*, Boston, Massachusetts, July 17.

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2009. Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy. *Society for Economic Research on Copyright Issues 2009 Congress (SERCI)*, San Francisco, California, July 9-10.

Smith, Michael D. 2009. Does the Economics of Information and Communications Technologies Matter? Discussion and Application to Digital Media Research. Invited Keynote Address, 7th Annual ZEW Conference on the Economics of Information and Communications Technologies, Mannheim, Germany, July 3-4, 2009.

Ma, Liye, Param Vir Singh, Michael D. Smith. 2009. No Meaningful Impact? The Effect of Pre-Release Piracy on Movie Box Office Sales. *Fifth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR)*, Pittsburgh, Pennsylvania, May 30-31.

Garg, Rajiv, Michael D. Smith, Rahul Telang. 2009. Peer Influence and Information Diffusion on Online Social Networks. *Fifth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR)*, Pittsburgh, Pennsylvania, May 30-31.

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2009. Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy. *International Industrial Organization Conference (IIOC)*, Boston, Massachusetts, April 3-5.

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2008. Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy. *Workshop on Information Systems and Economics (WISE)*, Paris, France, December 13-14.

Danaher, Brett, Samita Dhanasobhon, Michael D. Smith, Rahul Telang. 2008. Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy. *Web 2.0 Workshop on Economics, Law and Information Systems*, Mannheim, Germany, December 11-12.

Dhanasobhon, Samita, Michael D. Smith, Rahul Telang. 2008. Digital Distribution: The Impact of New Digital Distribution Channels on Internet Piracy. *INFORMS Annual Meetings*, Washington, DC, October 12-15.

Brynjolfsson, Erik, Yu Jeffrey Hu, Michael D. Smith. 2008. Profit in the Long Tail. *INFORMS Annual Meetings*, Washington, DC, October 12-15.

Dhanasobhon, Samita, Michael D. Smith, Rahul Telang. 2008. Converting Pirates Without Cannibalizing Purchasers: The Impact of Digital Distribution on Physical Sales and Internet Piracy. *Conference on Information Systems and Technology* (CIST), Washington, DC, October 11-12.

Agarwal, Ashish, Kartik Hosanagar, Michael D. Smith. 2008. Location, Location, Location: An Analysis of Profitability and Position in Online Advertising Markets. *INFORMS Marketing Science Conference*, Vancouver, British Columbia, Canada, June 12-14.

Agarwal, Ashish, Kartik Hosanagar, Michael D. Smith. 2008. Location, Location, Location: An Analysis of Profitability and Position in Online Advertising Markets. *Fourth Symposium on Statistical Challenges in eCommerce Research* (SCECR'08), New York, May 18-19.

Smith, Michael D. 2008. Experiments in Digital Distribution and their Impact on Physical Sales and Internet Piracy. *Mini-Conference on Marketing and Innovation*, Lally School of Management and Technology, Rensselaer Polytechnic Institute, Albany, New York, May 2-3.

Smith, Michael D., Rahul Telang. 2008. Piracy or Promotion? The Impact of the Broadband Internet Penetration on DVD Sales. *Winter Conference on Business Intelligence*, David Eccles School of Business, University of Utah, Salt Lake City, Utah, March 20-22.

Agarwal, Ashish, Kartik Hosanagar, Michael D. Smith. 2007. Location, Location, Location: An Analysis of Profitability and Position in Online Advertising Markets. *Workshop on Information Systems and Economics* (WISE), Montreal, Quebec, Canada, December 8-9.

Kemerer, Chris, Charles Liu, Michael D. Smith, Sandra Slaughter. 2007. Network Effects in the Flash Memory Market: A Preliminary Analysis. *Workshop on Information Systems and Economics* (WISE), Montreal, Quebec, Canada, December 8-9.

Smith, Michael D., Rahul Telang. 2007. Piracy or Promotion? The Impact of the Broadband Internet Penetration on DVD Sales. *INFORMS Annual Meeting*, Seattle, Washington, November 4-7.

Chen, Pei-yu, Samita Dhanasobhon, Michael D. Smith. 2007. All Reviews are Not Created Equal: The Disaggregate Impact of Reviews and Reviewers at Amazon.com. *INFORMS Annual Meeting*, Seattle, Washington, November 4-7.

Smith, Michael D., Rahul Telang. 2007. Piracy or Promotion? The Impact of the Broadband Internet Penetration on DVD Sales. *Third Symposium on Statistical Challenges in eCommerce Research* (SCECR'07), Stamford, Connecticut, May 18-19.

Smith, Michael D., Rahul Telang. 2007. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Internet Piracy. *International Industrial Organization Conference* (IIOC), Savannah, GA, April 14-15.

Smith, Michael D., Rahul Telang. 2007. Piracy or Promotion? The Impact of the Broadband Internet Penetration on DVD Sales. *Economics of Information Systems Workshop*, Department of Decision and Information Sciences, Warrington College of Business, University of Florida, Gainsville, FL, January 26-27.

"The Impact of New Technologies and New Distribution Channels on Media Sales and Media Piracy," *Workshop on Information Security Economics*, Center for Discrete Mathematics & Theoretical Computer Science (DIMACS), Rutgers University, January 18-19, 2007.

Smith, Michael D., Rahul Telang. 2006. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Internet Piracy. *Workshop on Information Systems and Economics* (WISE), Chicago, IL, December 9-10.

Smith, Michael D., Rahul Telang. 2006. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Internet Piracy. *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8.

Smith, Michael D., Rahul Telang. 2006. An Analysis of Bittorrent Peer-to-Peer Networks and Internet Movie Piracy. *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8.

Smith, Michael D., Rahul Telang. 2006. Internet Exchanges for Information Goods. *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8.

Krishnan, Ramayya, Michael D. Smith, Rahul Telang. 2006. Peer-to-Peer Technologies: A Research-Oriented Introduction. *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8.

Kemerer, Chris, Charles Liu, Michael D. Smith. 2006. Winners-Take-Some: The Impact of Conversion Technologies on Network Effects in Digital Goods Markets. *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8.

Smith, Michael D., Rahul Telang. 2006. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Internet Piracy. *Telecommunications Policy Research Conference* (TPRC), Arlington, VA, September 29-October 1.

Smith, Michael D., Rahul Telang. 2006. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy. *INFORMS Marketing Science Conference*, Pittsburgh, PA, June 8-10.

Smith, Michael D., Rahul Telang. 2006. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy. *Second Annual Statistical Challenges in Electronic Commerce Research Symposium*, Carlson School of Management, University of Minnesota, Minneapolis, MN, May 22-23.

Smith, Michael D., Rahul Telang. 2006. Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy. *Economics of Information Systems Workshop*, Department of Decision and Information Sciences, Warrington College of Business, University of Florida, Gainsville, FL, February 10-11.

Tang, Zhulei, Alan Montgomery, Michael D. Smith. 2005. The Impact of Shopbot Use on Prices and Price Dispersion: Evidence from Disaggregate Data. *Workshop on Information Systems and Economics* (WISE), Irvine, CA, December 9-10.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2005. Internet Exchanges for Used Books: Welfare Implications and Policy Issues. *INFORMS Annual Meeting*, San Francisco, CA, November 13-15.

Smith, Michael D. 2005. Peer-to-Peer Business Models and Implications for Markets. *Economics of Digital Business Models*, Paris, France, June 17-18.

Tang, Zhulei, Yu Hu, Michael D. Smith. 2005. Protecting Online Privacy: Self Regulation, Mandatory Standards, or Caveat Emptor. *Workshop on the Economics of Information Security* (WEIS), Boston, MA, June 2-3.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2005. Internet Exchanges for Used Books: Welfare Implications and Policy Issues. *Statistical Challenges in Ecommerce*, College Park, MD, May 22-23.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2005. Internet Exchanges for Used Books: Welfare Implications and Policy Issues. *International Industrial Organization Conference* (IIOC), Atlanta, GA, April 8-9.

Clay, Karen, Astrid A. Dick, Michael D. Smith. 2005. The Effect of Increased Search Costs on Internet-Enabled Arbitrage: Evidence from the International Textbook Market. *International Industrial Organization Conference* (IIOC), Atlanta, GA, April 8-9.

Asvanund, Atip, Ramayya Krishnan, Michael D. Smith, Rahul Telang. 2004. Intelligent Club Management in Peer-to-Peer Music Sharing Networks. *NET Institute Conference on Network Economics*, New York, NY, April 1.

Smith, Michael D., Rahul Telang. 2004. Internet Exchanges for Used Goods: A Comparison of Digital and Analog Information Goods. *Workshop on Information Systems and Economics* (WISE), Washington D.C., December 11-12.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2004. Internet Exchanges for Used Books: An Empirical Analysis of Welfare Implications and Policy Issues. *INFORMS Annual Meeting*, Denver, Colorado, October 24-27.

Ghose, Anindya, Michael D. Smith, Rahul Telang. 2004. Internet Exchanges for Used Books: An Empirical Analysis of Welfare Implications and Policy Issues. *MISRC/CRITO Symposium on the Digital Divide*, Minneapolis, Minnesota, August 28-29.

Krishnan, Ramayya, Michael D. Smith, Zhulei Tang, Rahul Telang. 2003. The Virtual Commons: Why Free-Riding Can Be Tolerated in File Sharing Networks. *Workshop on Information Systems and Economics* (WISE), Seattle, Washington, December 13-14.

Hu, Yu, Michael D. Smith, Zhulei Tang. 2003. Protecting Online Privacy: Self Regulation, Mandatory Standards, or Caveat Emptor. *Workshop on Information Systems and Economics* (WISE), Seattle, Washington, December 13-14.

Asvanund, Atip, Michael D. Smith, Rahul Telang. 2003. "Intelligent Club Management in Peer-to-Peer Music Sharing Networks." *Workshop on Information Technology and Systems* (WITS), Seattle, WA, December 13-14.

Hosanagar, Kartik, John Chuang, Michael D. Smith. 2003. Optimal Pricing of Content Delivery Network Services. *Workshop on Information Technology and Systems* (WITS), Seattle, WA, December 13-14.

Brynjolfsson, Erik, Astrid A. Dick, Michael D. Smith. 2003. "Search and Product Differentiation at an Internet Shopbot." *Quantitative Marketing and Economics Conference* (QME), Chicago, IL, October 24-25.

Brynjolfsson, Erik, Alan Montgomery, Michael D. Smith. 2003. "An Empirical Study of Consumer Choice Behavior at an Internet Shopbot." *Marketing Science Conference*, College Park, MD, June 12-15.

Asvanund, Atip, Ramayya Krishnan, Michael D. Smith, Rahul Telang. 2003. "Intelligent Club Management in Peer-to-Peer Music Sharing Networks." *Workshop on the Economics of Peer-to-Peer Systems*, Berkeley, CA, June 5-6.

Brynjolfsson, Erik, Yu Hu, Michael D. Smith. 2003. "Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety." *International Industrial Organization Conference* (IIOC), Boston, MA, April 4-5.

Brynjolfsson, Erik, Yu Hu, Michael D. Smith. 2003. "Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety." Firm Behavior and the Internet Economy, *Allied Social Science Association / American Economic Association* (ASSA/AEA), Washington, D.C., January 3-5.

Clay, Karen, Stanley Ouyang, Michael D. Smith, Eric Wolff. 2003. "Leader-Follower Behavior on the Web: Evidence from Online Bookstores." Firm Behavior and the Internet Economy, *Allied Social Science Association / American Economic Association* (ASSA/AEA), Washington, D.C., January 3-5.

Clay, Karen, Stanley Ouyang, Michael D. Smith, Eric Wolff. 2002. "Leader-Follower Behavior on the Web: Evidence from Online Bookstores." *Workshop on Information Systems and Economics* (WISE), Barcelona, Spain, December 12-14.

Montgomery, Alan, Michael Smith. 2002. "The Profitability of Shopbot Design." *Marketing Science Conference*, Edmonton, Alberta, Canada, June 28-30.

Smith, Michael. 2002. "Structure and Competition in Electronic Markets." *American Marketing Association* (AMA), Winter Educators Conference, Special Session on Doctoral Dissertation Research in Electronic Commerce, Austin, Texas, February 22-25.

Brynjolfsson, Erik, Yu Hu, Michael Smith. 2001. "Consumer Surplus in the Digital Economy: Estimating the Value of Access to New Goods Enabled by Electronic Markets." *Workshop on Information Systems and Economics* (WISE), New Orleans, Louisiana; December 14-15.

Smith, Michael. 2001. "Toward an Understanding of the Impact of Shopbots on Electronic Markets." Marketing Sciences Institute Conference on Marketing to and Serving Customers Through the Internet, Boca Raton, Florida, December 6-7.

Clay, Karen, Michael Smith, Eric Wolff. 2001. "Lead, Follow, or Go Your Own Way: Empirical Evidence Against Leader-Follower Behavior in Electronic Markets." *Telecommunications Policy Research Conference, Alexandria* (TPRC), Virginia, October 27-29.

Asvanund, Atip, Karen Clay, Ramayya Krishnan, Michael Smith. 2001. "Bigger May Not Be Better: An Empirical Analysis of Optimal Membership Rules in Peer-to-Peer Networks." *Telecommunications Policy Research Conference* (TPRC), Alexandria, Virginia, October 27-29.

Smith, Michael. 2001. "Search and Transaction Costs on the Internet." University of California at Berkeley Invitational Choice Symposium, Monterey, California, June 1-5.

Smith, Michael, Erik Brynjolfsson. 2001. "Customer Decision-making at an Internet Shopbot," National Bureau of Economic Research (NBER), Program on Electronic Commerce, Bodega Bay, California, January 26-27.

Smith, Michael. 2000. "The Law of One Price? Price Dispersion and Price Matching in Electronic Markets." *Workshop on Information Systems and Economics* (WISE), Brisbane, Australia; December 14-15.

Brynjolfsson, Erik, Michael Smith. 1999. "The Great Equalizer? The Role of Shopbots in Electronic Markets." *Workshop on Information Systems and Economics* (WISE), Charlotte, North Carolina; December 11-12.

Brynjolfsson, Erik, Michael Smith. 1999. "Frictionless Commerce? A Comparison of Internet and Conventional Retailers," 1999 *Computing in Economics and Finance* (CEF) Conference; Boston, Massachusetts; June 24-26.

Brynjolfsson, Erik, Michael Smith. 1998. "Internet Market Efficiency: Fact or Friction?" *Workshop on Information Systems and Economics* (WISE), New York, New York; December 11-12. (Best Student Presentation Award)

OTHER PAPERS AND PUBLICATIONS

Garg, Rajiv, Michael D. Smith, Rahul Telang. 2009. The Role of Peer Influence in Marketing Online Social Networks. *International Association of Business Communications*, Student Connection, Haris Krijestorac and Manolis Kounelakis, editors, December.

Smith, Michael, Judy Franklin. 1992. Using Real Time Machine Learning to Allocate Wireless Communication Channels. GTE Laboratories Technical Memorandum, March.

INVITED ORAL PRESENTATIONS

"Digital Channels for Media Goods," The Evolving Digital Marketing Frontier Conference, Center for Marketing Technology and Information, Tepper School of Business, Carnegie Mellon University, Pittsburgh, PA, May 19, 2011.

"Information Discovery and the Long Tail of Motion Picture Content." W.P. Carey School of Business, Arizona State University, Tempe, Arizona, April 22, 2011.

"Channels and Conflict: Measuring the Impact of Digital Distribution Channels on Demand for Physical and Pirated Content." Distinguished Speaker Seminar Series, Desautels Faculty of Management, McGill University, Montreal, Quebec, Canada, March 3, 2011.

"Marketing Challenges in the Presence of Digital Distribution Channels." The Thriving in the Digital Age Conference, Undergraduate Marketing Organization, American Marketing Association Regional Conference, Pittsburgh, PA, October 9, 2010.

"Channels and Conflict: Consumer Response to Digital Distribution Channels." Research Seminar, Yahoo, Mountain View, CA, August 16, 2010.

"Channels and Conflict: Consumer Response to Digital Distribution Channels." Tech Talk, Google, Mountain View, CA, August 16, 2010. (Available from http://www.youtube.com/watch?v=Y4VsTm3TPj4)

"Cross-Channel Substitution Patterns in Digital Media," Innovation Session: Business Impact of Digital Media, Summer Camp Innovation Forum, Masters of Science in Information Technology and CIO Institute, Carnegie Mellon University, Pittsburgh, PA, August 6, 2010.

"Using Natural Experiments to Identify Cross-Channel Substitution Patterns in Digital Media." Research Seminar, London Business School, London, UK, June 21, 2010.

"Competing with Free: The Impact of Digital Distribution Channels on Media Consumption." Center for Digital Business Research Seminar, MIT, Cambridge, Massachusetts, April 26, 2010.

"Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy." Applied Microeconomics Seminar, Cornell University, Ithaca, New York, March 17, 2010.

"Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy." Research Seminar, Department of Information, Risk, and Operations Management, McCombs School of Business, University of Texas at Austin, Austin, Texas, January 28, 2010.

"Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy." Research Seminar, Department of Management Information Systems, Fox School of Business, Temple University, Philadelphia, Pennsylvania, December 4, 2009.

"Competing With Free: Can Digital Distribution Reduce Piracy?" University of Southern California, Marshall School, Institute for Communication Technology Management, Los Angeles, California, November 20, 2009.

"Competing With Free: Can Digital Distribution Reduce Piracy?" BayTSP Online Trends and Insight Conference, Los Gatos, California, October 15, 2009.

"Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy." Research Seminar, Department of Decision, Operations, and Information Technology, Robert H. Smith School of Business, University of Maryland, College Park, Maryland, October 9, 2009.

"Converting Pirates without Cannibalizing Purchasers: The Impact of New Digital Distribution Channels on Internet Piracy." Research Seminar, Information Operations and Management Department, Marshall School of Business, University of Southern California, Los Angeles, California, July 10, 2009.

"A Discussion of 'Taller Profiles and/or Longer Tails,' by Mark McCabe and Christopher Snyder." 7th Annual ZEW Conference on the Economics of Information and Communications Technologies, Mannheim, Germany, July 3-4, 2009.

"A Discussion of 'Intellectual Property Rights Enforcement in Imperfect Markets,' by Jiahua Che, Larry Qiu, and Wen Zhou." *International Industrial Organization Conference* (IIOC), Boston, Massachusetts, April 5, 2009.

"Technological Change in Media Industries," The Study of Entrepreneurship, Innovation, and Technological Change (SET Change) Seminar, Carnegie Mellon University, Pittsburgh, PA, April 2, 2009.

"Careers in Information Technology," Panelist, Doctoral Career Path Seminar, Carnegie Mellon University, Graduate Programs Office, Pittsburgh, PA, February 9, 2009.

"Preventing Piracy in a Multi-Platform World," Panelist, Third Annual Future Television Show Summit, New York, NY, January 21-22, 2009. "Competing with Free: The Impact of Movie Broadcasts on DVD sales and Internet Piracy," Research Seminar, Carlson School of Management, University of Minnesota, Minneapolis, Minnesota, April 18, 2008.

"Competing with Free: The Impact of Movie Broadcasts on DVD sales and Internet Piracy," Research Seminar Series, H. John Heinz III School of Public Policy and Management, Carnegie Mellon University, Pittsburgh, PA, March 17, 2008.

"A Discussion of 'Estimating Menu Costs in Electronic Markets,' by Anindya Ghose and Bin Gu." *International Conference on Information Systems* (ICIS), Montreal, Quebec, Canada, December 9-12, 2007.

"A Discussion of 'Trust and Survival of Service Providers in an eMarket,' 'Servicing the Long Tail: Using Customer Relationship Management Techniques to Manage Service Center Employee Relationships,' 'An Empirical Analysis of Price, Quality, and Incumbency in Online Procurement Auctions.' "Services Research Session. Workshop on the Economics of Information Systems and Economics, Montreal, Quebec, Canada. December 8-9, 2007.

"Consumption in the Digital Age," Panelist, The Internet Entertainment Workshop, Motion Picture Association of America, Universal City, CA, September 20, 2007.

"Does the Economics of ICT Matter?" Invited Keynote Address, *The Economics of Information and Communications Technologies*, Sciences Economiques et Sociales, Ecole Nationale Superieure des Telecommunications, Paris, France, June 21-22, 2007.

"A Discussion of 'Advertising as a Signal in an Internet Auctions Market,' by Jose J. Canals-Cerda." *International Industrial Organization Conference* (IIOC), Savannah, GA, April 14-15, 2007.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," Research Colloquium, Department of Information Systems, The Paul Merage School of Business, University of California at Irvine, Irvine, CA, March 15, 2007.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," Research Seminar, Marketing and Information Systems Departments, College of Business, University of Illinois at Urbana-Champaign, Champaign, IL, March 9, 2007.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," Research Seminar, Department of Information, Risk, and Operations Management, McCombs School of Business, University of Texas at Austin, Austin, TX, February 9, 2007.

"A Discussion of Papers in the 'Long Tail' Program Track," *Workshop on Information Systems and Economics* (WISE), Chicago, IL, December 10, 2006.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," Thomas J. Burns Research Colloquium, Department of Accounting and Management Information Systems, Fisher College of Business, Ohio State University, Columbus, OH, November 10, 2006.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," Information Systems and Operations Management Faculty Research Seminar, School of Business, University of Washington, Seattle, Washington, October 20, 2006.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," Information Systems and Operations Management Faculty Research Seminar, University of Texas at Dallas, Dallas, Texas, September 15, 2006.

"A Discussion of 'Strategic Sales Management Guided by Economic Regimes,' by W. Ketter, J. Collins, M. Gini, A. Gupta and P. Schrater," *Second Annual Statistical Challenges in Electronic Commerce Research Symposium*, Carlson School of Management, University of Minnesota, Minneapolis, MN, May 22-23.

"Presentation of 'Digital Transformation' Course Themes and Pedagogy," IT Teaching Conference, Harvard Business School, May 5, 2006. "Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," MIT Research Seminar in IT and Organizations, Massachusetts Institute of Technology, Sloan School of Management, March 15, 2006.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," Management Information Systems Department, John and Cheryl Coffin Academic Speaker Series, Krannert School of Management, Purdue University, February 24, 2006.

"Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Piracy," IT Policy Group, Engineering and Public Policy Department, Carnegie Mellon University, Pittsburgh, PA, February 16, 2006.

"A Discussion of 'The Sound of Silence in Online Feedback: Estimating Trading Risks in the Presence of Reporting Bias' by Chrysanthos Dellarocas and Charles A. Wood," *Workshop on Information Systems and Economics* (WISE), December 10-11, 2005.

"A Discussion of 'Price-formats as Sources of Price Dispersion: A Study of Online and Offline Prices in the Domestic US Airline Market' by Ramnath K. Chellappa, Raymond G. Sin, and S. Siddarth," *Workshop on Information Systems and Economics* (WISE), December 10-11, 2005.

"Technology in the Marketing Mix," Management in Technology Organizations, Executive Education, Tepper School of Business, Carnegie Mellon University, Pittsburgh, PA, November 11, 2005.

"Internet Exchanges for Used Books: Welfare Implications and Policy Issues," Information Systems Department Seminar, Michigan State University, Eli Broad Graduate School of Management, October 7, 2005.

"A Discussion of 'Partial Licensing of Product Innovations'," *Economics of Digital Business Models*, Paris, France, June 17-18, 2005.

"The Economics of Peer-to-Peer Networks: Analysis and Implications for Regulation," Presentation to Commissioner Pamela Jones Harbour and Staff, Federal Trade Commission, June 15, 2005.

"Regulation and Design of Peer-to-Peer Networks." Research Seminar. Federal Trade Commission (FTC), Washington, DC, May 20, 2005.

"A Discussion of 'Vettes and Lemons on eBay' by Christopher Adams, Laura Hosken, and Peter Newberry." *International Industrial Organization Conference* (IIOC), Atlanta, GA, April 8-9, 2005.

"The Future of Peer-to-Peer Technology: Effects on Efficiency and Competition," Panelist, Panel on Peerto-Peer File Sharing Technology: Consumer Protection and Competition Issues, Federal Trade Commission (FTC), Washington, D.C., December 15, 2004.

"A Discussion of 'On the Formation of Peer-to-Peer Networks: Self-Organized Sharing, Groups, and Links'," *International Conference on Information Systems* (ICIS), Washington, DC, December 12-15, 2004.

"A Discussion of 'Product Information Availability in the Internet: Implications for the Structure of Markets with Differentiated Products'," *Workshop on Information Systems and Economics* (WISE), College Park, MD, December 11, 2004.

"Internet Exchanges for Used Books: Welfare Implications and Policy Issues," Economics Department Seminar, Indiana University, Kelly School of Business, December 10, 2004.

"Technology in the Marketing Mix," Management in Technology Organizations, Executive Education, Tepper School of Business, Carnegie Mellon University, Pittsburgh, PA, November 11, 2004.

"Intelligent Club Management in Peer-to-Peer Music Sharing Networks," Information Systems Department Seminar, University of Connecticut, Storrs, CT, November 5, 2004.

"Intelligent Club Management in Peer-to-Peer Music Sharing Networks," Information Systems Department Seminar, Stern School of Management, New York University, September 9, 2004.

"Technology in the Marketing Mix," Management in Technology Organizations, Executive Education, Tepper School of Business, Carnegie Mellon University, Pittsburgh, PA, March 18, 2004.

"Search Costs in Electronic Markets: Research Questions and Analysis," Research Seminar: Information Technology and Organizations, MIT Sloan School of Management, February 19, 2004.

"Technology in the Marketing Mix," Management in Technology Organizations, Executive Education, Tepper School of Business, Carnegie Mellon University, Pittsburgh, PA, November 5, 2003.

"Search and Product Differentiation at an Internet Shopbot," Economics Department Seminar, University of Delaware, Newark, DE, October 28, 2003.

"Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety," Information Systems Seminar, University of California at Irvine, Irvine, CA, May 9, 2003.

"Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety," Department of Economics, University of Arizona, Tucson, AZ, May 5, 2003.

"An Empirical Analysis of Network Externalities in P2P Music-Sharing Networks," Laboratory for Telecommunications Science Seminar, University of Maryland Institute for Advanced Computer Studies, University of Maryland, College Park, MD, November 21, 2002.

"Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety," Information Technology Seminar, University of Maryland, College Park, MD, November 20, 2002.

"Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety," Information Technology Seminar, University of Pittsburgh, Pittsburgh, PA, November 13, 2002.

"An Empirical Analysis of Network Externalities in P2P Music-Sharing Networks," Marketing Seminar, Graduate School of Industrial Administration, Carnegie Mellon University, Pittsburgh, PA, April 26, 2002.

"Internet Value Drivers," Management in Technology Organizations, Executive Education, Graduate School of Industrial Administration, Carnegie Mellon University, March 20, 2002.

"Understanding Consumer Behavior in Internet Markets," InSITeS Brainstorming Panel: "What are the Hot Issues in Assessing the Challenges and Opportunities for E-Commerce?," Carnegie Mellon University, March 12, 2002.

"The Great Equalizer? The Role of Shopbots in Electronic Markets," Microeconomics Seminar, Stanford University, May 30, 2001.

"Structure and Competition in Electronic Markets," Management in Technology Organizations, Executive Education, Graduate School of Industrial Organization, Carnegie Mellon University, March 21, 2001.

"eMarketing: Sources of Competitive Advantage in Internet Markets," eMarketing Success Drivers, Executive Education, Graduate School of Industrial Organization, Carnegie Mellon University, March 5, 2001.

"A Discussion of 'Follow the Leader? Strategic Pricing in Electronic Commerce' by Chuck Wood and Rob Kaufman," International Conference on Information Systems (ICIS), Brisbane, Australia, December 11, 2000.

"Electronic Commerce: Gaining Competitive Advantage in Internet Markets," Managing the Technology Organization, Executive Education, Graduate School of Industrial Organization, Carnegie Mellon University, Pittsburgh, PA, November 9, 2000.

"Network Externalities and Competition in Intermediated B2B Markets," Managing the Technology Organization, Executive Education, Graduate School of Industrial Organization, Carnegie Mellon University, Pittsburgh, PA, November 9, 2000.

"The Great Equalizer? The Role of Shopbots in Electronic Markets," Economics, Law, and Organizations Seminar, University of Chicago, Chicago, IL, October 19, 2000.

"The Great Equalizer? The Role of Shopbots in Electronic Markets," National Bureau of Economic Research Program on Electronic Commerce, Cambridge, MA, July 22, 2000.

"The Great Equalizer? The Role of Shopbots in Electronic Markets," eBusiness@MIT Sponsor Research Seminar, Cambridge, MA, June 19, 2000.

"Information, Intermediaries, and the Nature of Electronic Commerce," Seminar to Executives from Tekes Corporation, Cambridge, MA, June 2, 2000.

"Structure and Competition in Electronic Markets," Seminar for Executives of CSK Corporation, Cambridge, MA, June 10, 2000.

"Information, Intermediaries, and the Nature of Electronic Commerce," Seminar to Executives from British Telecom Corporation, Cambridge, MA, May 24, 2000.

"The Great Equalizer? The Role of Shopbots in Electronic Markets," eBusiness@MIT Seminar, Cambridge, MA, May 10, 2000.

"Customer Behavior in Internet Markets," Seminar for Executives of British Telecom Corporation, Cambridge, MA, April 12, 2000.

"Frictionless Commerce? An Exploratory Analysis of Internet Pricing Behavior," Productivity Workshop at the National Bureau of Economic Research, Cambridge, MA, March 17, 2000.

"The Great Equalizer? The Role of Shopbots in Electronic Markets," Job Talk Presentation, The Wharton School, University of Pennsylvania; Boston University; Stern School of Business, New York University; H. John Heinz III School of Public Policy and Management, Carnegie Mellon University; The University of Michigan; Graduate School of Business, Stanford University; University of Texas at Austin; University of Maryland; Indiana University, January-March, 2000.

"Internet Price Intermediaries and Consumer Choice Behavior," MIT Economics Department, Industrial Organization Seminar, Cambridge, MA, October 23, 1999.

"Frictionless Commerce? A Comparison of Internet and Conventional Retailers," Program on Electronic Commerce and Marketing Seminar, Cambridge, MA, May 7, 1999.

"Understanding Electronic Commerce," Seminar to Executives from Tekes Corporation, Cambridge, MA, March 22, 1999.

"Understanding Electronic Commerce," Seminar to Executives from Goodyear Corporation, Cambridge, MA, March 12, 1999.

"Frictionless Commerce? A Comparison of Internet and Conventional Retailers," Charles River Information Technology Group, Cambridge, MA, January 25, 1999.

"Internet Market Efficiency: Fact of Friction?" Center for Information Systems Research, Cambridge, MA, October 20, 1998.

"Electronic Commerce and Retail Competition on the Internet," Alfred A. Berg Fund Presentation, Cambridge, MA, September 17, 1998.

"Trends and Developments in Telecommunications Technology, GTE Technology Seminar, Spring 1995.

"Telecommunications Technology in the Year 2020," University of Delaware, College of Agricultural Science, September 1994.

"Network Modeling Using Artificial Intelligence," GTE Technology Seminar, Spring 1994.

"Using Machine Learning to Efficiently Allocate Wireless Communication Channels," GTE Action Learning Workshop, February 1992.

EDITORIAL BOARD MEMBERSHIPS

Guest Editor (with Ravi Bapna and Paulo Goes) of *Management Science* special issue on Big Data Business Analytics, 2012.

Senior Editor, Information Systems Research, 2009-2012.

Associate Editor, MIS Quarterly, 2008-2010.

Associate Editor, Management Science, 2005-2010.

Associate Editor, Information Systems Research, 2003-2006.

Associate Editor, Information Systems Research, Special Issue on Digital Systems and Competition, 2008.

Editorial Board, Decision Support Systems, 2003-Present.

Editorial Board, I/S: A Journal of Law and Policy for the Information Society, 2004-Present.

Associate Editor, *International Conference on Information Systems*, Web-based Information Systems and Applications Track, 2007

Ad Hoc Associate Editor, Management Science, 2004-2005.

Associate Editor, *International Conference on Information Systems*, Business Models and Economics Track, 2002.

PROFESSIONAL MEMBERSHIP AND ACTIVITIES

Co-Director, iLab Center for Digital Media Research at Carnegie Mellon, 2008-Present.

Research Associate, Center for Marketing Technology and Information, Tepper School of Business, Carnegie Mellon University, 2010-Present.

Participant, The National Academies Board on Science Technology and Economic Policy, Workshop on the Economics Impact of Copyright, June 9, 2011.

Faculty Mentor, 2010 Doctoral Consortium, International Conference on Information Systems, St. Louis, Missouri, December 9-10, 2010.

Session Chair, Social Media, Workshop on Information Systems and Economics, St. Louis, Missouri, December 12, 2010.

NSF Panel Participant, September 2009.

Session Chair, Online Markets, Seventh ZEW Conference on the Economics of Information and Communication Technologies, July 3-4, 2009.

Program Co-Chair, Fifth Symposium on Statistical Challenges in eCommerce Research (SCECR'09), Pittsburgh, May 10-11, 2009.

Session Chair, User Generated Content, Fourth Symposium on Statistical Challenges in eCommerce Research (SCECR'08), New York, May 18-19, 2008.

Co-Chair, Social Network Analysis in IS Research Minitrack, *The 2008 Americas Conference on Information Systems (AMCIS)*, Toronto, Canada, August 14-17, 2008.

Session Chair, Information Systems and Security, *INFORMS Annual Meeting*, Seattle, Washington, November 4-7, 2007.

Co-Chair, The Peer-to-Peer Paradigm Minitrack, *The 2007 Americas Conference on Information Systems (AMCIS)*, Keystone, Colorado, August 9-12, 2007.

Session Chair, Digital and Media Piracy Track, *International Industrial Organization Conference* (IIOC), Savannah, GA, April 14-15, 2007.

Program Co-Chair, Workshop on Information Systems and Economics (WISE), December 8-9, 2006.

Chair, Piracy and Copyright Issues in Markets for Information Goods, Information Systems Society Cluster, *INFORMS Annual Meeting*, Pittsburgh, PA, November 5-8, 2006.

Co-Chair, The Peer-to-Peer Paradigm Minitrack, *The 2006 Americas Conference on Information Systems (AMCIS)*, Acapulco, Mexico, August 4-6, 2006.

Participant, Information Technology Case Teaching Workshop, Harvard Business School, Boston, MA, May 5, 2006.

Co-Chair, The Economics of Peer-to-Peer Networks Minitrack, *The 2005 Americas Conference on Information Systems (AMCIS)*, Omaha, Nebraska, August 11-15, 2005.

Advisory Board, SSRN Information Systems and Economics Abstracting Journal, 2004-Present.

Advisory Board, Institute for the Study of Information Technology and Society, H. John Heinz III School of Public Policy and Management, Carnegie Mellon University, 2001-Present.

Advisory Board, Electronic Commerce Research Forum, eBusiness@MIT, 2000-Present.

Session Chair, Online Consumer Behavior I, *Workshop on Information Systems and Economics (WISE)*, College Park, Maryland, December 11, 2004.

Participant, Information Technology Case Teaching Workshop, Center for Electronic Business and Commerce (CEBC), Stanford University, Palo Alto, CA, March 19, 2004.

Program Committee, Workshop on the Economics of Peer-to-Peer Systems, Berkeley, CA, June 2003.

Session Chair, Incentives in Peer-to-Peer Networks, *Workshop on the Economics of Peer-to-Peer Systems*, Berkeley, CA, June 2003.

Participant, Harvard Business School, Case Method Teaching Seminar, March 2002.

Discussant, International Conference on Information Systems, Brisbane, Australia, December 11, 2000.

NSF Panel Participant, November 2000.

Session Chair, Internet Economics II - Electronic Commerce, *Computing in Economics and Finance Conference*, June 1999.

Co-Editor, Electronic Commerce Research Forum, 1999-2000.

Member: Association for Information Systems, American Economics Association, American Marketing Association, INFORMS.

Referee: Management Science, Information Systems Research, MIS Quarterly, Journal of Management Information Systems, Journal of Political Economy, Journal of Industrial Economics, Journal of Business, Journal of Public Policy and Marketing, Journal of the Academy of Marketing Science, Journal of Interactive Marketing, Information Economics and Policy, International Conference on Information Systems, INFORMS Computer Society, California Management Review, The Electronic Commerce Research Journal, B.E. Journals in Economic Analysis and Policy, Empirical Economics, International Review of Economics and Finance, Eastern Economic Journal, Economic Modeling, Information Technology and Management, Austrian Science Fund, Omega the International Journal of Management Science, Hawaii International Conference on Information System Sciences.

DOCTORAL STUDENT ADVISING

Jing Gong, First year doctoral student, Heinz College, School of Information Systems and Management, Carnegie Mellon University.

Yi Zhang, First year doctoral student, Heinz College, School of Information Systems and Management, Carnegie Mellon University.

Daegon Cho, Second year doctoral student, Heinz College, School of Information Systems and Management, Carnegie Mellon University.

Yan Huang, Second year doctoral student, Heinz College, School of Information Systems and Management, Carnegie Mellon University.

Zia Hadari, Second year doctoral student, Tepper School of Business, Carnegie Mellon University.

Rajiv Garg, Third year doctoral student, Heinz College, School of Information Systems and Management, Carnegie Mellon University.

Tat Koon Koh, Fourth year doctoral student, Tepper School of Business, Carnegie Mellon University.

Samita Dhanasobhon, Fourth year doctoral student, H. John Heinz III School of Public Policy and Management, Carnegie Mellon University. (Chulalongkorn University, Thailand).

Angela Newell, "The Democratic Information Architecture: Government As Nexus," Dissertation Committee, Johnson School of Public Affairs, University of Texas at Austin, Graduated 2011.

Anuj Kumar, "Essays on Technology Enabled Multi-channel Operations," Dissertation Committee, Heinz College, School of Information Systems and Management, Carnegie Mellon University, Graduated 2011 (Warrington College of Business Administration, University of Florida).

Alexandre Mateus, "Copyright Violation on the Internet: Extend and Approaches to Detection and Deterrence," Dissertation Committee, Engineering and Public Policy, Carnegie Mellon Unuversity and Instituto Superior Técnico, Lisbon, Portugal, Graduated 2011.

Ashish Agarwal, "Essays on Economics of Technology Markets," Dissertation Committee, Tepper School of Business, Carnegie Mellon University. Graduated 2009 (University of Texas at Austin).

Zhechao (Charles) Liu, "Winners-Take-Some: The Impact of Conversion Technologies on Network Effects in Digital Goods Markets," Dissertation Committee, Katz School of Business, University of Pittsburgh. Graduated 2008 (University of Texas at San Antonio).

Zhulei Tang, "Essays on the Analysis and Design of Efficient Electronic Marketplaces," Dissertation Chair, Tepper School of Business, Carnegie Mellon University. Graduated 2005 (Krannert School of Management, Purdue University).

Anindya Ghose, "The Strategic Impact of Internet Institutions and Secondary Electronic Markets on Firm Performance, Market Structure and Social Welfare: An Analytical and Empirical Framework," Dissertation Committee, Graduate School of Industrial Administration, Carnegie Mellon University. Graduated 2004 (Stern School of Business, New York University).

Neveen Farag Awad, "Bringing the Corner-Store Online: The Challenges and Promises of Online Customer Service," Dissertation Committee, University of Michigan Business School. Graduated 2004 (Wayne State University).

Atip Asvanund, "Peer-to-Peer Networks: User Behavior, Network Effects, and Protocol Extensions," Dissertation Committee, Heinz School, Carnegie Mellon University. Graduated 2004 (TA Orange, Thailand).

Kartik Hosanagar, "Three Essays on the Design of Intermediation Services on the Internet," Dissertation Committee, Heinz School, Carnegie Mellon University. Graduated 2003 (The Wharton School, University of Pennsylvania).

Bonnie Brinton Anderson, "Analysis of Adoption and Usage of Software," Dissertation Committee, Heinz School, Carnegie Mellon University. Graduated 2001 (Marriott School of Business, Brigham Young University).

MASTERS STUDENT ADVISING

Harish Moodalbail Ganeshmurthy, Ramkumar Karunanidhi, Rajas Dilip Lonkar, Wancheng Zhou, "Measuring Promotional Effects in Electronic Sell Through Data," MISM IS Project, Fall 2011.

Aravind Bharadwaj, Aaron Couch, Rituparna Dey, Rahul Sharma, Prasanna Srinivasan, Jose Pedro Undurraga, "Interplay of Kindle and Print Book Markets," MISM IS Project, Spring 2011.

Hibatun Nasir, Jinkyuk Chang, Satish Pasala, Siu Chun Lai, Yao Wee Ng, "Analyzing the Economic Impact of New Online Book Content Delivery Models on Traditional Online Book Retailers," MISM IS Project, Fall 2010.

Devon Rollins, "An Empirical Analysis: Social Media for Open Source Intelligence Gathering," Masters of Information Security Policy and Management Thesis, Spring 2010.

Anand Subramanian, Goutham Balakrishnan, Nirupama Suryanarayanan, "Cannibalization Effects in eBook Sales," MISM IS Project, Spring 2010.

Christopher Canning, Joan Downing, Brent Kennedy, Derrick Spooner, Robert Weiland, "The Impact of Twitter and Social Network Chat on Box Office Revenue," MISM IS Project, Spring 2010.

Prathibha Alam, Fatima Deme, Abhay Doshi, Xiao Yang Fu, Akhil Perumpadappil, "Promotion and Piracy in International Television Windows," MISM IS Project, Spring 2010.

Romit Banerjee, Jin Cao, Chaoyi Li, Xibei Li, Michael Zander, "Price Elasticity Effects in Digital Textbook Distribution," MISM IS Project, Fall 2009.

Vikrant Agarwal, Ravi Chinoy, Edward McFowland III, Antony Joseph Peter, Xiaotian Xu, "Targeted Marketing Using Peer-To-Peer Network Usage Data," MISM IS Project, Fall 2009.

Madhusudan Subbu, "Instrumenting the BitTorrent Protocol for Data Collection and Analysis," Fall 2009.

Devon Rollins, "A Twittersphere's View: E-Disasters versus Natural Disasters," Fall 2009.

Vikrant Agarwal, "Measuring Piracy using Online Streaming Sites," Spring 2009.

Nidhi Yadav, "The Long Tail of Theatrical Piracy," Spring 2009.

Vasundhara Garg, "The Impact of Digital Marketplaces on the Structure of the Diamond Industry," Spring 2009.

Lauren Balderston, Ardhendu Bhatia, Liang Huang, Berk Kircal, Shirley Leow, Shailesh Radhakrishnan, "Cannibalization Effects of eBook Distribution," MISM IS Project, Fall 2008.

John Bennett, Justin Lachesky, Chun Ming Lee, Kevin Purtell, Ahsan Saleem, Alzandy Tan, "Digital Dashboard for Electronic Sales Channels," MISM IS Project, Fall 2008.

Brandon J. Carson, Sandy Ho, Abhinav Raj, Jike Yin, "The Business of Piracy," MISM IS Project, Spring 2008.

Hyung Jin Kim, "On Channel Diversification in Broadcasting," Spring 2008.

Temitope Awofisayo, "The Impact of Digital Distribution on Hard Goods Sales," Spring 2008.

Rajas Patange, "Analysis of Anti-Piracy Activities on BitTorrent Networks," Spring 2008.

Guillermo Jose Aguilar, "Analysis of Hard Goods Piracy in Amazon DVD Markets," Fall 2007.

Ihnaee Choi and Guillermo Jose Aguilar, "Analysis of File Sharing in BitTorrent Networks," Summer 2007.

Megha Sanghvi, "Marketing and the Wisdom of Crowds," Spring 2007.

Amita Pimple, "Analysis of BitTorrent Traffic by Geography," Fall 2006.

Benoit Durandeux, "Analysis of BitTorrent Traffic by Movie Lifecycle," Summer 2006.

Sang Dong Lee, "The Impact of Movie Broadcasts on Internet Piracy," Spring 2006.

Ji Hae Suh, "Detecting and Predicting the Change in Customer Behavior Based on Decision Tree and Markov Chains," Fall 2005.

Pisit Chartbanchachai, "Digital Broadcast Flag: Technology and Regulatory Issues," Fall 2005.

Guljeet Nagpaul, Nik Bonaddio, Naoshaadh Hussan, Taw Sung Chung, Noraw Al-Naffouri, Weiboon Goh. "Sourcing Strategies for Alcoa Corporation," MISM IS Project, Summer 2005.

Chang, Paul, Eun Jin Kim, Jae Hong Park, Michael Wongwaisayawan, Liyang Zhang, "Business Case for Incorporating Measurement Technology into Processes of Centimark Corporation," MISM IS Project, Spring 2005.

Ashwin Narawim, "The Impact of Used Book Markets on New Good Sales," December 2004.

John Lawrence, "Customer Demand Management: Overview and Managerial Issues," December 2004.

David Dewey, Samita Dhanasobhon, Steve Gee, Stoyan Arabadijyski, Sumiko F. Hossain, "Analyzing Internet Data for Competitive Advantage," MISM IS Project, August 2004.

Young Seung Lee, "Mobile Electronic Commerce: Analysis and Strategic Implications," December 2003.

Sarvesh Bagla, Munjal Kapadia, "Simulating the Performance of Peer-to-Peer Networks," Chair, Masters Thesis, Information Networking Institute, Graduated May 2003.

Deepa Mani, "The Impact of Protocols, Architecture, and Incentives on Free-Riding in Commercial Peerto-Peer Networks," November 2002.

Anthony Kattukaran, "The Impact of XML on the Finance Sector," May 2002.

Sherae Daniel, "Internet Shopbot Services," December 2001.

Stuthimathi Vijayaraghavan, "Valuing Internet Brands," May 2001.

Shamit Mehta, "Universal Music Group: Going Online?" February 2001.

UNDERGRADUATE STUDENT ADVISING

Thomas Oliver, "The Impact of Movie Broadcasts on Digital Piracy," December 2005.

Simon Xi, "Analysis of Pricing Dynamics in Amazon.com Used Book Markets," December 2004.

Salim Mawani, "The Use of Information Technology in the Financial Services Industry," August 2003.

Brian Yuen, "Analysis of Patterns and Trends in Clickstream Data," May 2003.

Aurin Bhattacharjee, "Managing Change in Merrill Lynch: Organizational Impacts of Team Consulting," September 2002.

Vincent Amen, "Analysis of Shopbot Business Characteristics," May 2002.

SERVICE

Faculty Program Chair, Information Systems Management Program Committee, 2009-Present.

Chair, Business Intelligence and Data Analytics Academic Programs Committee, 2011.

Member, Ph.D. Committee, 2003, 2007, 2009-Present.

Member, Institute for the Management of Creative Enterprises Program Committee, 2008-Present.

Ryan Award Selection Committee 2010-2011.

Member, Australia Educational Programs Review Committee, 2010-Present.

Faculty Advisor, Student Edited Edition of International Association of Business Communications Newsletter, "Exploring the Benefits of Social Media for Business Development," edited by Emmanouil Kounelakis and Haris Krijestorac, December 2009.

Member, Information Systems Management Program Committee, 2002-2009.

Faculty Host, Heinz Alumni Reception, Pacific Palisades, California, July 12, 2009.

Member, Carnegie Mellon University Non-Tenure Promotion Committee, 2009-Present.

Booth Judge, Carnegie Mellon Carnival, 2005, 2007, 2009.

Faculty Advisor, MISM Team, International Case Challenge, 2008.

Member, Heinz College Dean Search Committee, 2008-2009.

Session Chair, "The Internet's 'Long Tail' — Implications of Increased Product Variety for Consumers, Producers, and Creative Artists," Heinz School Reunion, 2005.

Member, MISM Commencement Awards Committee, 2005.

Faculty Advisor, Masters of Information Systems Management Program, 2001-2005.

Faculty Advisor, First Year PhD Students, 2002-2004.

Member, Faculty Recruiting Committee, 2002-2003.

Member, Masters Program Policy Committee, 2001-2002.

Presentations to Dean's Advisory Board (Fall 2011), MISM/MSIT Visitation (Fall 2008, Spring 2007), Heinz Doctoral Seminar (2011-2003, 2000), Heinz School Board of Visitors (2005), Heinz School Staff Meeting on Faculty Research (2004), Heinz School Review — Marketing Non-Profit Organization Workshop (2004), GSIA Research Seminar (2003), HCI Doctoral Seminar (2003), Heinz Monday Research Seminar (2002), INI Research Seminar (2001, 2000), InfoLink Program (2001).

RESEARCH GRANTS AND AWARDS

Google Research Award for "Broken Windows? The Future of International Distribution Windows in a Global Media Market" (with Rahul Telang), June 2011.

Google Research Award for "Estimating The Welfare Gain From Digitization of 'Out-Of-Print' Books" (with Rahul Telang), May 2011.

International Intellectual Property Institute and United States Patent and Trademark Office for "Statistical Analysis of the Impact of Camcording Piracy" (with Rahul Telang), April 2011.

Marketing Science Institute and Wharton Interactive Media Initiative Research Award for "Modeling Multichannel Customer Behavior," (with Anuj Kumar and Rahul Telang), June 2010.

Google WPP Marketing Research Award for "Channels and Conflict: Efficient Marketing Strategies for Digital Distribution Channels," (with Rahul Telang), February 2010.

Yahoo! Faculty Research and Engagement Gift for "Advertising Strategies for Social Networks," (with Nachi Sahoo), November 2009.

Center for the Analysis of Property Rights and Innovation (CAPRI) Research Grant for "The Impact of Digital Music Distribution on Physical Sales and Internet Piracy," (with Brett Danaher and Rahul Telang), March 2009.

Research Grant, Motion Pictures Laboratories Incorporated, "Analysis of Piracy in Online Secondary Markets," (with Rahul Telang), August 2007.

Summer Research Grant, Networks, Electronic Commerce, and Telecommunications (NET) Institute, "Standards Competition in the Presence of Conversion Technology: An Empirical Analysis of the Flash Memory Card Market" (with Charles Liu and Chris Kemerer), June 2007.

Center for the Analysis of Property Rights and Innovation (CAPRI) Research Grant for "Competing with Free: The Impact of Movie Broadcasts on DVD Sales and Internet Piracy," (with Rahul Telang), October 2006.

NSF CAREER Award, "Designing Efficient Information Exchanges: A Program for Research and Teaching." NSF Award Number IIS-0448516, \$493,748, 2005-2010.

Summer Research Grant, Networks, Electronic Commerce, and Telecommunications (NET) Institute, "Incentives and Protocols for Self-Organizing Interest-Based Peer-to-Peer Networks," (with Rahul Telang), June 2004.

Amazon.com Research Grant, March 2003.

Marketing Science Institute, Research Award #4-1191, "The Profitability of Shopbot Design" (with Alan Montgomery), October 2002.

Berkman Faculty Development Award, November 2000.

ACADEMIC HONORS AND AWARDS

National Academy of Engineering Frontiers of Engineering Symposium. One of 100 "emerging engineering leaders" selected for symposium by the National Academy of Engineering, 2009.

Best Teacher Award. Student-nominated award given at commencement to an instructor in the Masters of Information Systems Management and Masters of Science in Information Technology programs. Award winner: 2009, 2004. Nominated: 2008, 2007, 2005.

Interfraternity and Panhellenic Role Model Award, 2008.

Best Published Paper Award Runer-Up, Information Systems Research, "Internet Exchanges for Used Books: An Empirical Analysis of Product Cannibalization and Welfare Impact," with Anindya Ghose, and Rahul Telang, 2007.

Heinz Career Development Chair, Carnegie Mellon University, 2006-2009.

Best Paper Award Nomination, 2004 International Conference on Information Systems (ICIS), "Price Elasticities and Social Welfare in Secondary Electronic Markets," with Anindya Ghose and Rahul Telang.

Best Paper Award Runner-Up, The 37th Hawaii International Conference on System Sciences (HICSS-37), "The Virtual Commons: Why Free-Riding Can Be Tolerated in File Sharing Networks" (with Ramayya Krishnan, Zhulei Tang, and Rahul Telang), January 2004.

Best Paper Award Runner-Up, International Conference on Information Systems (ICIS), Barcelona, Spain, "An Empirical Analysis of Network Externalities in Peer-To-Peer Music Sharing Networks" (with Atip Asvanund, Karen Clay, and Ramayya Krishnan), December 2002.

National Society of Collegiate Scholars, Outstanding Faculty Award, April 2002.

Best Dissertation Award Finalist, International Conference on Information Systems (ICIS), December 2001.

Best Student Presentation, Workshop on Information Systems and Economics (WISE), December 1998.

DuWayne Peterson Fellowship, Massachusetts Institute of Technology, Sloan School, 1997-1999.

INDUSTRY HONORS AND AWARDS

Booz Allen & Hamilton Performance Award, for outstanding client support, March 1996.

GTE I-Plan Award, for innovation and creativity, February 1995.

UNDERGRADUATE HONORS AND AWARDS

Valedictorian and Commencement Speaker, College of Engineering, University of Maryland, 1991.

William L. Everitt Student Award, given by the National Engineering Consortium to the two top Engineering and Computer Science students at the University of Maryland, Spring 1991.

Spirit of Maryland Award, given by the University of Maryland to the most outstanding senior on the basis of scholarship, leadership, and citizenship, Fall 1990.

Omicron Delta Kappa Province I Leader of the Year, voted most outstanding student leader among the 24 colleges and universities in ODK Province I, 1990-1991.

Chapter President, Omicron Delta Kappa, Leadership Honor Society, University of Maryland, 1990-1991.

Outstanding Academic Performance Award, presented by the Electrical Engineering Department to the junior student with the highest academic average, 1990.

Dinah Berman Memorial Award, presented to the student in the College of Engineering with the highest academic average at the end of the sophomore year, 1989.

Chapter Vice President, Mortar Board Senior Honor Society, University of Maryland, 1998-1999.

Tau Beta Pi Engineering Honor Society, 1989-1991.

Phi Kappa Phi Honor Society, 1988-1991.

Impetus III, Paper Published in University of Maryland English Department Journal of Outstanding Student Writing, 1987.