# Kartik Hosanagar Curriculum Vitae

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### **EXPERIENCE**

2003 – present The Wharton School, University of Pennsylvania John C. Hower Professor, (July 2016 - present) Full Professor (July 2014 - ) Faculty Director, Venture Initiation Program (August 2012 – May 2015) Associate Professor, Operations and Information Management (July 2009 – June 2014) Assistant Professor (August 2003 – June 2009) 2005 - 2009Cofounder, Yodle Inc (acquired by Web.com (NASDAQ: WEB)) Developed the algorithms that were the firm's core Intellectual Property (IP) at founding. Developed the business plan with cofounders Chief scientist (2005-2007); Advisory board (2007-2009) 1999 - 2003 Carnegie Mellon University, Pittsburgh, USA Research Assistant 1999 Honeywell Software Operations, Bangalore, India Designed a system for transfer of building automation data over the Internet. 1998 Novell Inc, Bangalore, India (Quality Management Group) Developed a version control module for the Quality Management Group.

### **EDUCATION**

Ph.D., Management Science and Information Systems, Carnegie Mellon University, (1999-2003).

- William Cooper Award for best thesis in Management or Management Science, 2004
- M. Philosophy in Management Science and Information Systems, Carnegie Mellon University, 2003.
- M. Science in Information Systems (with distinction), Birla Institute of Technology and Science (BITS), Pilani, India, 1999.
  - Valedictorian, graduating class of Information Systems

B.E., Electronics and Instrumentation Engineering (with distinction), Birla Institute of Technology and Science (BITS), Pilani, India 1998.

- Valedictorian, graduating class of Electronics and Instrumentation
- Awarded BITS Pilani "30 under 30" award, December 2005

#### **HONORS**

- Dean's teaching award, 2018.
- Wharton Undergraduate Division's Excellence in Teaching Award, 2018.
- Department Editor, Management Science (2018-present)
- Best Information Systems paper published in *Management Science* (for papers published 2013-2016), Awarded 2017.
- Finalist, Best Information Systems paper published in *Management Science* (for papers published 2012-2015), for "Do I Follow My Friends or the Crowd? Information Cascades in Online Movie Ratings," 2016.
- Finalist, Best Information Systems paper published in *Management Science* (for papers published 2012-2015), for "Will the Global Village Fracture into Tribes: Recommender Systems and Their Effects on Consumers," 2016.
- Wharton Undergraduate Division's Excellence in Teaching Award, 2016.
- Wharton Graduate Division's Excellence in Teaching Award, 2016.
- "Favorite Business School MBA Professors," List by Poets and Quants, 2016.
- Wharton Undergraduate Division's Excellence in Teaching Award, 2015.
- Commencement speaker, Undergraduate commencement ceremony, The Wharton School, University of Pennsylvania, 2014.
- Wharton Undergraduate Division's Excellence in Teaching Award, 2013.
- Emerald Citations of Excellence Award for Management Science article (Blockbuster Culture's Next Rise or Fall: The Impact of Recommender Systems on Sales Diversity) chosen as "one of the top 50 articles with proven impact since its publication date from the top 300 management journals in the world," 2013.
- Award for Outstanding Achievements from BITS Pilani Alumni Association, 2012.
- Named among "World's Top 40 Business School Professors under 40" by Poets & Quants, 2011.
- Best paper award, Mediterranean Conference on Information Systems (MCIS), 2011.
- Nominated for Wharton school's Helen Kardon Moss Anvil award, 2010.
- Wharton MBA core curriculum award to the professor "who goes above and beyond the call of duty", 2009.
- Wharton Graduate Division's Excellence in Teaching Award, 2009.
- Wharton Undergraduate Division's Excellence in Teaching Award, 2009.
- Nominated for Wharton school's Helen Kardon Moss Anvil award, 2008.
- Finalist, INFORMS JFIG best research paper, 2008.
- Wharton Graduate Division's Excellence in Teaching Award, 2008.
- Wharton MBA core curriculum award to the professor "who goes above and beyond the call of duty", 2007.
- 30 under 30 Award from BITS Pilani Alumni Association, 2005.
- William Cooper Award for best thesis in Management or Management Science, 2004.
- Finalist, Best Paper Award, Workshop on Information Technology and Systems, 2002.
- Best Paper Award, Consortium on Technology, Policy and Management, 2002.
- eBRC (e-Business Research Center) *Doctoral Dissertation Award*, 2002.
- Offered the Castanga fellowship (1999) at University of California, Berkeley (declined to attend CMU).
- National Talent Scholar (NTS), awarded by the Government of India.
- University scholarship awarded by BITS, Pilani to ten students on the basis of scholarship (1994-95).

### **PUBLICATIONS**

# **Books**

1. K. Hosanagar. 2019. A Human's Guide to Machine Intelligence: How Algorithms Are Shaping Our Lives and How We Can Stay in Control. New York: Penguin Viking.

### Articles Published in Refereed Journals

- 2. Montgomery, A., K. Hosanagar, R. Krishnan, and K. Clay. 2004. Designing a Better Shopbot. *Management Science*, Vol. 50, No. 2, pp. 189-206.
- 3. Hosanagar, K., R. Krishnan, J. Chuang, and V. Choudhary. 2005. Pricing and Resource Allocation in Caching Services with Multiple Levels of Quality of Service. *Management Science*, Vol. 51, No. 12, pp. 1844-1859.
  - a. *Best Paper Award*, Early conference draft at Consortium on Technology, Policy and Management, 2002.
- 4. Hosanagar, K., J. Chuang, R. Krishnan, and M. Smith. 2008. Service Adoption and Pricing of Content Delivery Network (CDN) Services. *Management Science*, Vol. 54, No. 9, pp. 1579-1593.
- 5. Hartmann, W., P. Manchanda, H. Nair, M. Bothner, P. Dodds, D. Godes, K. Hosanagar, and C. Tucker. 2008. Modeling Social Interactions: Identification, Empirical Methods and Policy Implications. *Marketing Letters*, Vol. 19, pp. 287-304.
- 6. Fleder, D. and K. Hosanagar. 2009. Blockbuster Culture's Next Rise or Fall: The Impact of Recommender Systems on Sales Diversity. *Management Science*, Vol. 55, No. 5, pp. 697-712.
  - a. Lead article.
  - b. *Emerald Citations of Excellence* Award for being "one of the top 50 articles with proven impact since its publication date from the top 300 management journals in the world."
  - c. Finalist, INFORMS JFIG best research paper, 2008.
- 7. Hosanagar, K., P. Han, and Y. Tan. 2010. Diffusion Models for Peer-to-Peer (P2P) Media Distribution: On the Impact of Decentralized, Constrained Supply. *Information Systems Research*, Vol. 21, No. 2, pp. 271-287.
- 8. R. Guerin and K. Hosanagar. 2010. Fostering IPv6 Migration Through Network Quality Differentials. *ACM SIGCOMM Computer Communication Review*, Vol. 40, No. 3, pp. 17-25.
- 9. Sen, S., Y. Jin, R. Guerin, and K. Hosanagar. 2010. Modeling the Dynamics of Network Technology Adoption and the Role of Converters. *IEEE/ACM Transactions on Networking*, Vol. 18, No. 6, pp. 1829-1840.
- 10. Hosanagar, K. 2011. User-Centric Operational Decision Making in Distributed Information Retrieval. *Information Systems Research*, Vol. 22, No. 4, December 2011, pp. 739-755.
  - a. Finalist, *Best Paper Award*, Early conference draft in Workshop on Information Technology and Systems (WITS), 2003.
- 11. Agarwal, A., K. Hosanagar, and M. Smith. 2011. Location, Location, Location: An Analysis of Profitability of Position in Online Advertising Markets. *Journal of Marketing Research*, Vol. 48, No. 6, pp. 1057-1073.
- 12. Hosanagar, K., and Y. Tan. 2012. Cooperative Cashing? An Economic Analysis of Document Duplication in Cooperative Caching. *Information Systems Research*, Vol. 23, No. 2, June 2012, pp. 356-375.
- 13. Lambrecht, A., K. Seim, N. J. Vilcassim, A. Cheema, Y. Chen, G. Crawford, K. Hosanagar, R. Iyengar, O. Koenigsberg, R. Lee, E. Miravete, O. Sahin. 2012. Price Discrimination in Service Industries, *Marketing Letters*, Vol. 23, pp. 423-438.

- 14. Abhishek, V. and K. Hosanagar. 2013. Optimal Bidding in Multi-Item Multi-Slot Sponsored Search Auctions. *Operations Research*, Vol. 61, No. 4, August 2013, pp. 855-873.
  - a. Runners up, best industry studies paper published in an INFORMS journal, awarded by Industry Studies Association (ISA), 2014.
- 15. Hosanagar, K., D. Fleder, D. Lee and A. Buja. 2014. Will the Global Village Fracture into Tribes? Recommender Systems and their Effects on Consumer Fragmentation. *Management Science*, Vol. 60, No. 4, April 2014, pp. 805-823.
  - a. Finalist, Best IS paper in *Management Science* during 2013-2015.
- 16. Abhishek, V., K. Hosanagar and P. Fader. 2014. Aggregation Bias in Sponsored Search Data: The Curse and the Cure. *Marketing Science*, Vol. 34, No. 1, pp. 59-77.
- 17. Lee, Y.J., K. Hosanagar and Y. Tan. 2015. Do I Follow My Friends or the Crowds? Examining Informational Cascades in Online Movie Reviews. *Management Science*, Vol. 61, No. 9, pp. 2241-2258.
  - a. Finalist, Best IS paper in *Management Science* during 2013-2015.
  - b. Winner, Best IS paper in *Management Science* during 2014-2016.
- 18. A. Agarwal, K. Hosanagar, and M. D. Smith. 2015. Do Organic Results Help or Hurt Sponsored Search Performance? *Information Systems Research*, Vol 26, No. 4.
- 19. Markopoulos, P. and K. Hosanagar. 2018. A Model of Product Design and Information Disclosure Investments. *Management Science*, Vol 64, No. 2, pp. 739–759.
- 20. R. Guerin, K. Hosanagar, X. Li, and S. Sen. 2018. Shared or Dedicated Infrastructure? On the Impact of Reprovisioning. Forthcoming in *MIS Quarterly*.
- 21. Peng, J., A. Agarwal, K. Hosanagar and R. Iyengar. 2018. Network Overlap and Content Sharing on Social Media Platforms. Forthcoming in *Journal of Marketing Research*, Vol. 55, No. 4, pp. 571-585.
- 22. Lee, D., K. Hosanagar, and H. Nair. 2018. Advertising Content and Consumer Engagement on Social Media: Evidence from Facebook. Forthcoming in *Management Science*.
- 23. Lee, D. and K. Hosanagar. 2018. How Do Recommender Systems Affect Sales Diversity? A Cross-Category Investigation via Randomized Field Experiment. Forthcoming in *Information Systems Research*.

# Other Publications

- 24. Hosanagar, K. 2008. CDN Pricing. In *Content Delivery Networks: Principles and Paradigms*, R. Buyya, A. K. Pathan, and A. Vakali (eds.), Springer.
- 25. Sen, S., R. Guérin, K. Hosanagar. 2011. Functionality-rich versus Minimalist Platforms: A Two-sided Market Analysis. Technical editorial note in *ACM SIGCOMM Computer Communication Review*, Vol. 41, No. 5, October, 2011, pp. 36-43.
- 26. Hosanagar, K. and A. P. Miller. 2019. Who do we blame for the filter bubble? On the interaction between people, data, and algorithms in online social systems. In *After the Digital Tornado*. K. Werbach (eds), Cambridge University Press.

# Working Papers

- 27. Lee, D. and K. Hosanagar. 2018. When do Recommender Systems Work the Best? The Moderating Effects of Product Attributes and Consumer Reviews on Recommender Performance. Minor Revision.
- 28. Amandeep Singh, Kartik Hosanagar, and Aviv Nevo. 2018. Estimating network effects in mobile platforms.
- 29. Alex Miller and Kartik Hosanagar. 2018. An Empirical Meta-analysis of E-commerce A/B Testing Practices.
- 30. Amandeep Singh, Kartik Hosanagar, and Amit Gandhi. 2018. Machine Learning of Instrumental Variables for Causal Inference.
- 31. Chen Jin, Kartik Hosanagar, Senthil Veeraraghavan. Impact of Bilateral Rating Systems on Online Platforms.
- 32. Chen Jin, Luyi Yang, and Kartik Hosanagar. To Brush or Not to Brush: Product Rankings, Customer Search, and Fake Orders.

Papers in Refereed Conference Proceedings (many of these articles were the origins of journal articles listed above)

- 33. Amandeep Singh, Kartik Hosanagar, and Aviv Nevo. "Estimating network effects in mobile platforms," Proceedings of the *Conference on Information Systems & Technology* (CIST), Phoenix, November 2018.
- 34. Alex P. Miller and Kartik Hosanagar. "An Exploratory Meta-Analysis of E-commerce A/B Testing Practices". Conference on Information Systems & Technology (CIST). November 2018. Phoenix, AZ.
- 35. Kartik Hosanagar and Alex P. Miller. "Improving Recommender Diversity with Probabilistic Item Selection". Workshop on Information Systems & Technologies (WITS). December 2017. Seoul, Korea.
- 36. Kartik Hosanagar and Alex P. Miller. "Improving Recommender Diversity with Probabilistic Item Selection". Conference on Information Systems & Technology (CIST). October 2017. Houston, TX.
- 37. Dokyun Lee, Kartik Hosanagar. (2016) "When do Recommender Systems Work the Best? The Moderating Effects of Product Attributes and Consumer Reviews on Recommender Performance", International World Wide Web Conference (WWW), Montreal, Canada.
- 38. Dokyun Lee, Kartik Hosanagar. (2015) "When do Recommender Systems Work the Best? The ModeratingEffects of Product Attributes and Consumer Reviews on Recommender Performance", *Conference of Information Systems and Technology (CIST)*, Philadelphia, United States.
- 39. Dokyun Lee and Kartik Hosanagar. People Who Liked This Study Also Liked: The Impact of Recommender Systems on Sales Volume and Diversity. International Conference on Information Systems (ICIS), Auckland, New Zealand, December 2014.
- 40. Peng, J., Agarwal, A., Hosanagar, K., & Iyengar, R. Toward effective social contagion: A micro level analysis of the impact of dyadic network relationship. International Conference on Information Systems (ICIS), Auckland, New Zealand, December 2014.

- 41. Jing Peng, Raghuram Iyengar, and Kartik Hosanagar. A Novel Approach to Attribution in Decisions Influenced by Multiple Sources. *The 24th Workshop on Information Technologies and Systems* (WITS 2014), Auckland, New Zealand.
- 42. Dokyun Lee, Kartik Hosanagar, and Harikesh Nair. Impact of Social Media Content on Consumer Engagement on Facebook: Application of Large- Scale Content Coding. Workshop on Information Technology and Systems (WITS), Milan, Italy, December 2013.
- 43. "A Model of Product Design and Information Disclosure Investments," P. Markopoulos and K. Hosanagar, Proceedings of the *International Conference on Information Systems* (ICIS), Milano, December 2013. An extended version appears as paper #18.
- 44. "Online Opinion Formation and Social Interactions," L. Yan, R. Guerin, K. Hosanagar, Y. Tan and S. Venkatesh, Proceedings of WITS, Orlando, Florida, December 2012.
- 45. "Optimal Bidding in Multi-Item Multi-Slot Sponsored Search Auctions," V. Abhishek and K. Hosanagar, Proceedings of ACM Conference on Electronic Commerce (EC), Valencia, Spain, June 2012. An extended version appears as paper #13.
- 46. "On Aggregation Bias in Sponsored Search Data: Existence and Implications," Abhishek, V., K. Hosanagar and P. Fader. Proceedings of ACM Conference on Electronic Commerce (EC), Valencia, Spain, June 2012. An extended version appears as paper #16.
- 47. "Sponsored Search: Do Organic Results help or hurt the Performance and under what conditions?," A. Agarwal, K. Hosanagar, and M. Smith, Proceedings of the *International Conference on Information Systems* (ICIS), Shanghai, China, December 2011. Acceptance Rate 12%. An extended version appears as paper #17.
- 48. "Optimal Bidding in Sponsored Search Auctions," K. Hosanagar and V.Abhishek, Proceedings of WITS, December, 2010. St. Louis, Missouri, USA. An extended version appears as paper #13.
- 49. "The Impact of Reprovisioning on the Choice of Shared versus Dedicated Networks." S. Sen, K. Yamauchi, R. Guerin, and K. Hosanagar, Proc. Ninth Workshop on E-Business (WEB 2010), December, 2010. St. Louis, Missouri, USA. An extended version appears as paper #23.
- 50. "Recommender Systems and their Effects on Consumers: The Fragmentation Debate," Fleder, D., K. Hosanagar and A. Buja, Proceedings of ACM Conference on Electronic Commerce (EC), June 2010. An extended version appears as paper #14.
- 51. "Do I Follow My Friends or the Crowds? Examining Informational Cascades in Online Movie Reviews," K. Hosanagar, Y.J. Lee, and Y. Tan. Proceedings of WITS, December 2009. An extended version appears as paper #15.
- 52. "Shared Versus Separate Networks The Impact of Reprovisioning." S. Sen, R. Guerin, and K. Hosanagar, Proceedings of ACM ReArch'09 Workshop, Rome, Italy, December 2009. An extended version appears as paper #23.
- 53. "Modeling User Click Behavior in Sponsored Search," V. Abhishek, P. Fader, K. Hosanagar, Proceedings of the *Workshop on Information Technology and Systems* (WITS), December 2008. An extended version appears as paper #16.

- 54. "Recommended For You: The Impact of Profit Incentives on the Relevance of Online Recommendations," Hosanagar, K., R. Krishnan, and L. Ma, Proceedings of the *International Conference on Information Systems* (ICIS), Paris, December 2008. An extended version appears as paper #25.
- 55. "Optimal Bidding in Stochastic Budget Constrained Slot Auctions," Hosanagar, K. and V. Cherepanov, Proceedings of the *Conference on Information Systems & Technology* (CIST), Washington DC, October 2008. An extended version appears as paper #13.
- 56. "Dynamics of Competition Between Incumbent and Emerging Network Technologies," Jin, Y., S. Sen, R. Guerin, K. Hosanagar, and Z. Zhang, Proceedings of *ACM NetEcon Workshop*, Seattle, August 2008. An extended version appears as paper #8.
- 57. "Optimal Bidding in Stochastic Budget Constrained Slot Auctions," Hosanagar, K. and V. Cherepanov, Proceedings of *ACM Conference on electronic commerce* (EC), Chicago, July 2008. Acceptance Rate: 19%. An extended version appears as paper #13.
- 58. "A Missing Data Paradox for Nearest Neighbor Recommender Systems," Fleder, D. and K. Hosanagar, Proceedings of the *Workshop on Information Technology and Systems* (WITS), December 2007.
- 59. "Recommender Systems and their Impact on Sales Diversity," Fleder, D. and K. Hosanagar, Proceedings of *ACM Conference on electronic commerce* (EC), San Diego, June 2007. Acceptance Rate: 27%. An extended version appears as paper #5.
- 60. "Optimal Rebating Strategies in Peer-to-Peer Content Distribution," Han, P., K. Hosanagar, and Y. Tan., Proceedings of the *International Conference on Information Systems* (ICIS), Las Vegas, December 2005. Acceptance Rate 12%. An extended version appears as paper #26.
- 61. "A Utility Theoretic Approach to Determining Optimal Wait Times in Distributed Information Retrieval," Hosanagar, K., Proceedings of the *ACM SIGIR Conference*, Salvador, Brazil, August 2005. Acceptance Rate 19%. An extended version appears as paper #9.
- 62. "Diffusion of Digital Products in Peer-to-Peer Networks," Han, P., K. Hosanagar, Y. Tan, Proceedings of the *International Conference on Information Systems* (ICIS), Washington D. C., December 2004. Acceptance Rate 16%. An extended version appears as paper #6.
- 63. "Optimal Duplication in Cooperative Web Caching," Hosanagar, K., Y. Tan, Proceedings of the 13th Workshop on Information Technology and Systems (WITS), Washington D. C., December 2004. Acceptance Rate: 26%. An extended version appears as paper #11.
- 64. "Optimal Rebating Strategies in P2P Diffusion," Han, P., K. Hosanagar, and Y. Tan, Proceedings of the 13th *Workshop on Information Technology and Systems (WITS)*, Washington D. C., December 2004. Acceptance Rate: 26%. An extended version appears as paper #26.
- 65. "Optimal Pricing of Content Delivery Network (CDN) Services," Hosanagar, K., R. Krishnan, J. Chuang, and M. Smith, Proceedings of the *Hawaii International Conference on Systems and Sciences (HICSS)*, Hawaii, January 2004. An extended version appears as paper #3.
- 66. "Service Adoption and Pricing of Content Delivery Network (CDN) Services," Hosanagar, K., J. Chuang, and R. Krishnan, Proceedings of the 12th *Workshop on Information Technology and Systems (WITS)*, Seattle, December 2003. Acceptance Rate: 29%. An extended version appears as paper #3.

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- 67. "Optimal Pricing and Capacity Allocation in Vertically Differentiated Web Caching Services," Hosanagar, K., R. Krishnan, J. Chuang, and V. Choudhary, Proceedings of the *International Conference on Information Systems (ICIS)*, Barcelona, December 2002. Acceptance Rate: 19%. An extended version appears as paper #2.
- 68. "Simulation/Optimization Based Design of Comparison Shopping Engines," Hosanagar, K., I. Karaesman, R. Krishnan, and A. Montgomery, Proceedings of the 11th *Workshop on Information Technology and Systems (WITS)*, Barcelona, December 2002. (Best paper award finalist). Acceptance Rate: 25%. An extended version appears as paper #1.
- 69. "Equilibrium Reputation Mechanism for Mobile Agent based Electronic commerce," Wang, X. F., K. Hosanagar, R. Krishnan, and P. K. Khosla, Proceedings of *ACM International conference on Autonomous Agent and Multi-agent Systems* (*AAMAS*), pages: 308-309, Poster paper, 2002. The new title of the extended version is "Ratings in Inspection Games: Initial Rating and dynamics".
- 70. "Pricing and Resource Allocation in Caching Services with Multiple Levels of QoS," Chuang, J., K. Hosanagar, and R. Krishnan, Proceedings of the 10th *Workshop on Information Technology and Systems (WITS)*, New Orleans, December 2001. Acceptance Rate: 28%. An extended version appears as paper #2.

# Selected Popular Writings and Op-Eds

- Harvard Business Review: The First Wave of Corporate AI Is Doomed to Fail
- Harvard Business Review: We Need Transparency in Algorithms, But Too Much Can Backfire
- Wired: Blame the Echo Chamber on Facebook. But Blame Yourself, Too
- Knowledge@Wharton: The Democratization of Machine Learning: What It Means for Tech Innovation
- Harvard Business Review: Why We Don't Trust Driverless Cars-Even When We Should
- Forbes: It's Time for Silicon Valley To Pivot
- Wired: You Can't Predict Viral Hits, but You Can Help Make Them Happen
- New York Times: Can Yahoo Be Rescued
- Economic Times: Flipkart Vs Amazon. The Great Indian e-commerce Challenge
- Knowledge@Wharton: Is India's Demographic Dividend a Liability

# Papers in Other Conference Programs (Not Refereed)

- Alex P. Miller & Kartik Hosanagar. "On the Detection of p-Hacking in Experimental Meta-Analysis: A Non-Parametric Procedure for Analyzing Discontinuities in Probability Densities". Conference on Digital Experimentation (CODE@MIT). October 2018. Cambridge, MA.
- Alex P. Miller & Kartik Hosanagar. "What's best to test? An empirical meta-analysis of e-commerce A/B testing practices". Conference on Data Science for Business and Economics at Purdue University. May 2018. West Lafayette, IN.
- Jing Peng, Ashish Agarwal, Kartik Hosanagar, and Raghuram Iyengar. Towards Effective Information Diffusion on Social Media Platforms: A Dyadic Analysis of Network Embeddedness. 2015 Workshop on Information Systems and Economics (WISE 2015), Fort Worth, USA.
- Jing Peng, Raghuram Iyengar, and Kartik Hosanagar. A Novel Approach to Attribution in Decisions Influenced by Multiple Sources. 2015 China Summer Workshop on Information Management (CSWIM 2015), Hefei, China.
- Alex P. Miller & Kartik Hosanagar. "What's best to test? An empirical meta-analysis of E-commerce A/B testing practices". Conference on Digital Experimentation (CODE@MIT). October 2017. Cambridge, MA.

- Dokyun Lee, Kartik Hosanagar, and Harikesh Nair. (2014) "The Effect of Social Media Marketing Content on Consumer Engagement: Evidence from Facebook," INFORMS, eBusiness, The Social Crowd: New Research in Social Media and Crowdsourcing. Invited Talk, San Francisco, US.
- Dokyun Lee, Kartik Hosanagar. (2014) "People Who Liked This Study Also Liked: The Impact of Recommender Systems on Sales Volume and Diversity", Conference on Digital Experimentation at MIT (CODE Conf), Boston, US.
- Dokyun Lee, Kartik Hosanagar, and Harikesh Nair. (2014) "The Effect of Social Media Marketing Content on Consumer Engagement: Evidence from Facebook.", Workshop on Information Systems and Economics (WISE), Auckland, New Zealand (Best Student Paper Award Runner up).
- Jing Peng, Raghuram Iyengar, and Kartik Hosanagar. Identifying Social Contagion from Multiple Potential Causes with Unknown Final Cause. *The 10th Statistical Conference in E-Commerce Research* (SCECR 2014), Tel Aviv, Israel.
- "The Effect of Advertising Content on Consumer Engagement in Social Media: Evidence from Facebook," D. Lee, K. Hosanagar, and H. Nair. In Symposium on Statistical Challenges in e-commerce Research (SCECR'13), Lisbon, June 27-28, 2013.
- "Toward Effective Social Advertising: A Micro Level Analysis of the Impact of Network Attributes on Social Influence," J. Peng, K. Hosanagar, A. Agarwal and R. Iyengar. In Symposium on Statistical Challenges in e-commerce Research (SCECR'13), Lisbon, June 27-28, 2013.
- "The Long Road to Online Conversion: A Model of Multi-Channel Attribution," V. Abhishek, P. Fader, and K. Hosanagar. In Symposium on Statistical Challenges in e-commerce Research (SCECR'13), Lisbon, June 27-28, 2013.
- "The Effect of Social Advertising Content on Consumer Engagement," D. Lee, K. Hosanagar, and H. Nair. In International Symposium of Information Systems (ISIS'13), Goa, India, January, 2013.
- "The Long Road to Online Conversion: A Model of Multi-Channel Attribution," V. Abhishek, P. Fader, and K. Hosanagar. In International Symposium of Information Systems (ISIS'13), Goa, India, January, 2013.
- "Social Advertising: Does Social Influence Work?," A. Agarwal and K. Hosanagar. In Workshop on Information Systems and Economics (WISE), Orlando, Florida, December 2012.
- "Landing Page Selection for Online Advertising: The Network Matters," P. Dandekar and K. Hosanagar. Poster paper in Workshop on Information Systems and Economics (WISE), Orlando, Florida, December 2012.
- "Optimal Bidding in Multi-Item Multi-Slot Sponsored Search Auctions," V. Abhishek and K. Hosanagar, Marketing Science conference, Boston, June 2012.
- "Modeling User Click Behavior in Sponsored Search," V. Abhishek, P. Fader, K. Hosanagar, Symposium on Statistical Challenges in eCommerce Research (SCECR'09), Pittsburgh, May 2009.
- "Recommender Systems and their Effects on Consumers: The Fragmentation Debate," Fleder, D. and K. Hosanagar. In Workshop on Information Systems and Economics (WISE), Paris, December 2008.
- "Location, Location and Location: An Analysis of Profitability and Position in Online Advertising Markets," Agarwal, A., K. Hosanagar, and M. Smith. Fourth Symposium on Statistical Challenges in eCommerce Research (SCECR'08), New York, May 18-19, 2008.
- "A Missing Data Paradox for Nearest Neighbor Recommender Systems," Fleder, D. and K. Hosanagar. Fourth Symposium on Statistical Challenges in eCommerce Research (SCECR'08), New York, May 18-19, 2008.
- "Blockbuster culture's next rise or fall: The impact of recommender's on sales diversity," Fleder, D. and K. Hosanagar. INFORMS Marketing Science Conference, Vancouver, British Columbia, Canada, June 12-14, 2008.
- "Location, Location and Location: An Analysis of Profitability and Position in Online Advertising Markets," Agarwal, A., K. Hosanagar, and M. Smith. INFORMS Marketing Science Conference, Vancouver, British Columbia, Canada, June 12-14, 2008.

- "Location, Location and Location: An Analysis of Profitability and Position in Online Advertising Markets," Agarwal, A., K. Hosanagar, and M. Smith. In Workshop on Information Systems and Economics, Montreal, December 2007.
- "Keyword Generation in Sponsored Search," Abhishek, V. and K. Hosanagar, Proceedings of the International Conference on Electronic Commerce, Minneapolis, August 2007. *Invited Paper*.
- "Blockbuster culture's next rise or fall: The impact of recommender's on sales diversity," Fleder, D. and K. Hosanagar, In Workshop on Information Systems Economics, Chicago, December, 2006.
- "Optimal Bidding in Online Slot Auctions," Hosanagar, K. and P. Stavrinides, Presented in International Symposium of Information Systems, Indian School of Business, Hyderabad, India.
- "Challenges in Grid Marketplace Design," Hosanagar, K. and R. Krishnan, Proceedings of the Workshop on Grid Economics, Singapore, June, 2006. *Invited Paper*.
- "A Utility Theory based Approach to Shopbot Design," Clay, K., K. Hosanagar, R. Krishnan, and A. Montgomery, Proceedings of the *CASOS conference*, Pittsburgh, June 2002.
- "Pricing Caching Services with Multiple Levels of QoS," Chuang, J., K. Hosanagar, R. Krishnan, Proceedings of the *Workshop on Digitization of Commerce*, Maastricht, Netherlands, November 2001.
- "Pricing Caching Services with Multiple Levels of QoS," Hosanagar, K., J. Chuang, R. Krishnan, Proceedings of the *IEEE Conference on Systems, Man and Cybernetics*, Tucson, Arizona, October, 2001.

# **TEACHING**

- OPIM 314/662: Enabling Technologies, Undergraduate/MBA elective, Spring 2004-2017 (latest evaluations: 3.56/4.00).
- OPIM 621: Decision Models & Uncertainty, MBA core at Wharton School, Fall 2004-2009 (latest evaluations: 3.94/4.00).
- OPIM 892: Technology & Entrepreneurship in India, UG/MBA elective, 2013-2018 (evaluation: 4.00/4.00).
- OPIM 613: IT and Digital Transformation, MBA core, Spring 2013 (latest evaluations: 3.45/4.00).
- OPIM 950: Ph.D. IS Seminar, Fall 2005, Fall 2009 (latest evaluations: 4.00/4.00).
- Executive Education classes and Advanced Topics classes on Internet Marketing, Internet Platforms, Trends in Internet Media, and Strategic Relevance of IT.
  - o Sample clients: American Express, Google, Nokia, Minsheng Bank (China), Wipro (India), Oliver Wyman, UBS, China Merchants Bank.

# **INVITED TALKS/PRESENTATIONS**

- Machine Learning of Instrumental Variables for Causal Inference (2019)
  - o University of California, Irvine
  - o University of Southern California
  - University of Calgary
  - University of Minnesota
- *Impact of Recommenders on Sales Diversity* (2015-)
  - o University of California, Los Angeles (2015)
  - o University of Florida (2016)
  - o Purdue University (2016)
  - o University of Delaware (2016)
  - o Boston University (2016)
  - o Microsoft Research (2017)
  - o Arizona State University (2017)
  - o Mc Gill University (2017)

- o Harvard Business School (2018)
- The Impact of Social Media Content on Engagement: Evidence from Facebook
  - o Columbia University (2014)
  - o University of Michigan (2014)
  - o University of Minnesota (2014)
  - o Temple University (2014)
  - o Carnegie Mellon University (2013)
  - o University of California, Davis (2013)
  - o University of Minnesota (2013)
  - o University of Texas, Austin (2013)
  - o Mack Center "Mobile and Social" conference, Wharton School (2013)
- Peak Billing for CDNs and Other Telecom Services
  - o Princeton University
- Impact of Recommenders on Consumer Fragmentation (2009 -2012)
  - O University of Michigan School of Information (2012)
  - o University of Maryland, College Park (2012)
  - o INSEAD Business School (2012)
  - o University of Utah (2012)
  - o Temple University (2012)
  - o Nanyang Business School, Singapore (2012)
  - o New York Computers & Econ day (NYCE) (2011)
  - o University of Washington, Seattle (2011)
  - o Stanford University MS&E (2010)
  - o University of Texas, Dallas (2010)
  - o Emory University (2010)
  - o Purdue University (2010)
  - o Opera Solutions Distinguished Lecture Series (2009)
  - o Princeton University (2009)
- IT Research and Industry Applications (Research to Startup): Plenary panel at WITS 2012.
- *Information Systems Economics*: Plenary panel at MCIS 2011.
- Data-Driven strategies for Web 2.0. Plenary panel at the winter conference on IS, Utah, 2009.
- Impact of Recommenders on Sales Diversity (Fall 2007-Spring 2008)
  - o Carnegie Mellon University
  - Stanford University (Marketing Department)
  - o NYU Stern (IOMS Dept)
  - o Net Institute, NYU
  - University of Connecticut
  - o University of Washington, Seattle
  - Stanford University (OIT)
  - o University of British Columbia, Vancouver, Canada
  - o INSEAD
  - University of Minnesota
- *Investing in Research and Practice to Increase Value of Recommenders*. Plenary panel presentation, ACM Recommender Systems conference (RecSys) 2007.
- Tutorial on Sponsored Search. Invited tutorial in ACM Conference on electronic commerce. June 2007.
- Bidding in Sponsored search Auctions
  - o Search Engine Marketing Conference, Princeton, February 2007.
  - o Computer and Information Systems (CIS), University of Pennsylvania, October, 2006.
  - o Singapore Management University, May 2006.
- Moderator, Wharton Entrepreneurship Conference, November 2006, 2007.

- Moderator, Wharton Technology Conference, February 2006.
- Moderator, Wharton India Economic Forum, March 2011, 2013.
- Competition and Vertical Integration in the Search Engine Market, Singapore Management University (2005).
- Strategic Value of IT Deployments, Wipro Systems (2005).
- Information Explosion and its Impact (2005).
  - o Singapore Management University
  - o Indian Institute of Information Technology
- Pricing Web Caching Services with Multiple Quality Levels (2003)
  - University of Rochester
  - New York University
  - o University of Washington, Seattle
  - o University of Pennsylvania
  - o Purdue University
  - o Pennsylvania State University
  - o Tulane University
- Designing Smarter Shopbots (2002).
  - o Nanyang Business School, Singapore
  - o ObjectOrb Technologies, India
  - o Indian Institute of Information Technology (IIIT)

### **ACADEMIC SERVICE**

Department Editor: Management Science (present)

Senior Editor: Information Systems Research (Jan '16 – December '17), MIS Quarterly (Jan '14 Jan '16)

Associate Editor: Information Systems Research (Jan '09 – Dec '12); Special issue of Management Science (Business Analytics); International Conference on Information Systems (2007, 2009).

Steering Committee: Ad Auctions Workshop (Jan '13 – present)

*Co-chair*: Third workshop on sponsored search, Banff, Canada, May 2007; co-chair of the first Internet Monetization Track at the 17<sup>th</sup> International World Wide Web Conference (WWW2008), Track chair at ICEC 2009.

Academic Advisory Board: Baker Center for Retail, Wharton Customer Analytics Initiative, Knowledge@Wharton.

Academic Director: Wharton Venture Initiation Program (Fall 2012 – May 2015)

Program Committee: ACM Conference on Electronic Commerce (EC) (2006, 2007, 2008); INFORMS Conference on Information Systems and Technology (CIST) (2004, 2005, 2006, 2007); Workshop on Information Technology and Systems (WITS) (2007, 2008); Workshop on e-Business (2005, 2006, 2007); Workshop on Grid Economics (2006, 2007); International Conference on electronic commerce (ICEC) (2007).

Reviewer: Management Science, Information Systems Research (ISR), Marketing Science, Decision Support Systems, Interfaces, Information Technology and Management, International Journal of Electronic Commerce, ACM conference on electronic commerce, International Conference on Information Systems, Journal of Database Management, Hawaii International Conference on System Sciences.

April 2019

Service@Wharton: Personnel Committee (2015-17), Promotions and Tenure Committee (2015-), Chair of Faculty Recruiting Committee (2012-13), MBA Executive Committee (2013-14), Faculty Recruiting Committee (various years); PhD Admissions Committee (various years), Seminar committee (various years).

Doctoral Students (chair): Daniel Fleder (Industry); Vibhanshu Abhishek (Carnegie Mellon University), Dokyun Lee (Carnegie Mellon University), Jing Peng (University of Connecticut).

Doctoral Students (committee member): Ashish Agarwal (Univ. of Texas, Austin), Soumya Sen (Princeton University), and Peng Han (Industry).

# **PERSONAL**

Country of citizenship: India

U.S. Visa status: Permanent Resident

# **SELECTED GRANT ACTIVITY (Documented until 2014)**

Name	Funding	Period	Type of	Role in	Amount
Of Grant	Agency	of Grant	Grant	Grant	
Strategic Use of Product Information	NYU NET	2013-14	External	PI	\$3,000
by Platform Operators: Impact on	Institute				
Social Welfare and Market Entry					
Effective Social Media Strategies	Mack Center,	2013-14	Internal	PI	\$10,000
	Wharton				
Information Diffusion and Opinion	National Science	2011-13	External	Co-PI	\$600,000
Formation in Networked Systems	Foundation (NSF)				
Measuring the Effect of Online	Mack Center,	2011-12	Internal	PI	\$9,000
Advertising on the Conversion Funnel	Wharton				
Impact of Digital Movie Distribution	Global, Initiatives,	2010	Internal	PI	\$6,000
on Media Piracy	Wharton				
Modeling Consumer Behavior in	Mack Center,	2009-10	Internal	PI	\$7,500
Sponsored Search	Wharton				
Recommender Systems and their	NYU NET	2008-09	External	PI	\$4,500
Effects on Consumers	Institute				
On the Economic Viability of	National Science	2007-10	External	Co-PI	\$1,200,000
Network Architectures	Foundation (NSF)				
Recommender Systems and their	NYU NET	2007-08	External	PI	\$6,000
Effects on Diversity	Institute				
Recommender Systems and the Long	Mack Center,	2007-08	Internal	PI	\$12,800
Tail	Wharton				
Budget Allocation in Cross-channel	Mack Center,	2007-08	Internal	PI	\$11,000
Online Advertising	Wharton				
Markets for Grid Computing	Wharton-SMU	2006-07	Internal	PI	\$27,150
, ,	Initiative				
Product Design and Competition in	Wharton eBusiness	2005-06	Internal	PI	\$7,500
Search Engine Market	Initiative				
Markets for Grid Computing	Wharton-SMU	2005-06	Internal	PI	\$27,000
	Initiative				
Software Agents for Information	Mack Center,	2004-05	Internal	PI	\$6,000
Search	Wharton				