

## Guodong (Gordon) Gao

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*Decision, Operations & Information Technologies*

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### POSITIONS HELD

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University of Maryland, College Park

2013- Associate Professor (with Tenure), R. H. Smith School of Business, University of Maryland

Fall 2013 Visiting Associate Professor, Johns Hopkins University

2005-2013 Assistant Professor, R. H. Smith School of Business, University of Maryland

### EDUCATION

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Ph.D. The Wharton School, University of Pennsylvania, 2005

M.B.A. Tsinghua-MIT Sloan Joint MBA Program, 2000

B.Econ. Economics, Tsinghua University, China, 1998

B.Eng. Electrical Engineering, Tsinghua University, China, 1998

### RESEARCH INTERESTS

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- Big Data in healthcare, health IT and analytics
- Mobile devices and patient empowerment
- Quality transparency: online ratings, quality certification, and disclosure

### RESEARCH PAPERS

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#### *Published papers*

- “The Creation of Social Value: Can an Online Health Community Reduce Rural-Urban Health Disparities?” (with JM Goh and Ritu Agarwal), *MIS Quarterly*, forthcoming
- “Website Ratings of Physicians and Their Quality of Care” (with Bradley Gray, Jonathan Vandergrift, J. L., Jeff McCullough, & Rebecca Lipner. *JAMA Internal Medicine*, 2015
- “Vocal Minority and Silent Majority: How Do Online Ratings Reflect Population Perceptions of Quality?” (with Brad Greenwood, Jeff McCullough and Ritu Agarwal), *MIS Quarterly*, 2015
- “Life is All about Timing: An Examination of Differences in Treatment Quality for Trauma Patients Based on Hospital Arrival Time”, (With Anderson, D., and Golden, B.), *Production and Operations Management*, 2014
- “Strategic Behavior in Online Reputation Systems: Evidence from eBay”, (with Ye, S. and Viswanathan, S.), *MIS Quarterly*, 2014
- “Information Technology and Voluntary Quality Disclosure by Hospitals” (with Agarwal, R., Angst, C., Khuntia, J., and McCullough, J.), *Decision Support Systems*, 2014
- “The Value of Trust Seals in Online Retailing” (with Koray Ozpolat, Wolfgang Jank, and Siva Viswanathan), *Information Systems Research*, 2013
- “A Changing Landscape of Physician Quality Reporting: Analysis of Patients’ Online Ratings of Their

Physicians Over a 5-Year Period”, (with Jeff McCullough, Ritu Agarwal, and Ashish Jha) *Journal of Medical Internet Research*, 2012;14(1):e38 (Impact factor: 4.7, ranked #1 in Medical Informatics, and #2 in Health Sciences/Health Services Research)

- “Information Technology and Trademarks: Implications for Product Variety” (with Lorin Hitt), *Management Science*, 2012
- “eHealth: What is Needed at the Policy Level?” (with Crutzen, R.), *Policy & Internet*, 2012
- “Evolving Work Routines: Adaptive Routinization of Information Technology in Healthcare” (with JM Goh and Ritu Agarwal), *Information Systems Research*, 2011
- “The Digital Transformation of Healthcare: Current Status and the Road Ahead”, (with Ritu Agarwal, Catherine DesRoches, and Ashish Jha), *Information Systems Research*, 2010
- “Are consumers more likely to contribute online reviews for hit products or niche products?” (with Chris Dellarocas and Ritu Narayan), *Journal of Management Information Systems*, 2010
- “The Contingent Effects of Quality Signaling: Evidence from the Indian Offshore IT Services Industry” (with Anand Gopal and Ritu Agarwal), *Management Science*, 2010
- “Certification in the Indian Offshore IT Services Industry” (with Anand Gopal), *M&SOM*, 2009
- “It Takes 10 Years to Sharpen a Sword: a Study on the China ITS offshoring industry” (with Erran Carmel and Ning Zhang), *MIS Quarterly Executive*, 2008.  
(reprinted in the book "China's Emerging Outsourcing Capabilities", edited by Mary C. Lacity, Leslie P. Willcocks and Yingqin Zheng, published by Palgrave Macmillan, 2010)
- “Consumer informedness and diverse consumer purchasing behaviors: Traditional mass-market, trading down, and trading out into the long tail” (with Eric Clemons), 2007, *Electronic Commerce Research and Applications*.
- “When Online Review Meets Hyperdifferentiation: a Study of Craft Beer Industry” (with Eric Clemons and Lorin Hitt), 2006, *Journal of Management Information Systems*.

#### *Papers under review*

- “Mobile Messaging for Offline Social Interactions: a Large Field Experiment” (with Tianshu Sun and Ginger Jin), under review at *Management Science* (**Best Conference Paper Award** at Informs/CIST 2015)
- “Cost Analysis of Reducing Unnecessary Cranial Computed Tomography Utilization among Children with Minor Blunt Head Trauma”, (with Shireen Atabaki, Jiban Khunthia, Ritu Agarwal, James Chamberlain, Roger Ziegler, and Brian Jacobs), under review.

#### *Selected conference papers and recent invited talks*

- “How Digital Word-of-Mouth Affects Consumer Decision Making: Evidence from a Natural Experiment”, University of Texas at Dallas, 2015
- “Digital Word-of-Mouth and Consumer Demand for Credence Services: Evidence from a Natural Experiment”, Workshop on Information Systems and Economics (WISE), 2014
- “Social Media and Patients”, Hopkins Grand Rounds Series, Division of Health Sciences Informatics, Johns Hopkins School of Medicine, 2013
- “Research Briefing on Doctor Ratings”, American Board of Internal Medicine, Philadelphia, PA, 2013
- “Vocal Minority and Silent Majority: How do Online Ratings Reflect Population Perceptions of Physician Quality?” (with Brad Greenwood, Jeff McCullough, and Ritu Agarwal), AcademyHealth annual research meeting, 2013, Baltimore, MD
- “A Changing Landscape of Physician Quality Reporting: Analysis of Patients’ Online Ratings of Their Physicians” (with Jeff McCullough, Ritu Agarwal, and Ashish Jha), Medicine 2.0 Conference at Harvard

Medical School, 2012

- “A Digital Soapbox? The Information Value of Online Physician Ratings” (with Brad Greenwood, Jeff McCullough and Ritu Agarwal), American Society for Health Economists 4th Biennial Conference (Ashecon), 2012
- “The Role of the Internet in Healthcare: Health IT and Web 2.0 Technologies”, University of Rochester Medical Center, 2012
- “The Information Value of Online Physician Ratings” (with Brad Greenwood, Jeff McCullough and Ritu Agarwal), *28th Annual Human-Computer Interaction Lab (HCIL) Symposium*, 2011
- “Biases of Online Doctor Ratings” (with Brad Greenwood, Jeff McCullough and Ritu Agarwal), *Informing Healthcare Conference*, 2011
- Invited presentation “Health Information Exchange and Health 2.0”, University of Maryland Health IT Summit, 2011
- “IT Automation and Efficiency in healthcare” (with Ravi Aron and Praveen Pathak), *Conference on Information Systems and Technology (CIST)*, 2011
- “A Preliminary Study on Doctor Ratings Online” (with Brad Greenwood, Jeff McCullough and Ritu Agarwal), *Workshop on Information Systems Economics (WISE)*, 2010
- “The landscape of Doctor Ratings” (with Jeff McCullough and Ritu Agarwal), *27th Annual Human-Computer Interaction Lab (HCIL) Symposium*, 2010
- "Revoking and Moral Hazard on eBay: An Empirical Investigation" (with Shun Ye and Siva Viswanathan), *Workshop on Information Systems Economics (WISE)*, 2009
- "Unpacking the Health IT adoption paradox" (with Jeff McCullough, Ritu Agarwal and Corey Angst), *Workshop on Information Systems Economics (WISE)*, 2009
- "Health IT's impact on hospital efficiency and quality" (with JM Goh and Ritu Agarwal), *International Health Economics Association Conference (iHEA)*, 2009
- “The Good, The Bad, or the Ugly? An Empirical Investigation of Revoking Behavior on eBay” (with Shun Ye and Siva Viswanathan), *Proceedings of the 30th International Conference on Information Systems (ICIS)*, 2009
- “The Impact of Clinical Documentation System: a Routines Perspective.” (with JM Goh, and Agarwal, R.) *INFORMS Annual Meeting*, San Diego, Oct, 2009.
- “Impact of Online Health Communities on Patients with Rare Disease.” (with JM Goh, and Agarwal, R.) *Fifth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR)* Carnegie Mellon University, Pittsburgh, May, 2009.
- “The Impact of a Computerized Documentation System on Clinical Routines in a Pediatrics Hospital.” (with Agarwal, R., JM. Goh, Jacobs, B., Manicone, P., and Corriveau, C.) American Medical Informatics Association Spring Congress, Orlando, May 28-30, 2009.
- “Implementation of a Computerized Clinical Documentation System (CCDS) in a Tertiary Care Pediatric Medical Center: A Longitudinal Survey of Users.” (with Manicone, P., Corriveau, C., Agarwal, R., Goh, J. and Jacobs, B.) *Pediatrics Academic Societies’ Annual Meeting*, Baltimore, May 2-5, 2009.
- “Time Motion Analysis of Consultations in a Pediatric Tertiary Care Medical Center Before and After Implementation of a Computerized Clinical Documentation System (CCDS).” (with Agarwal, R., Jacobs, B., Gao, G., Corriveau, C. and Manicone, P.) *Pediatrics Academic Societies’ Annual Meeting*, Baltimore, May 2-5, 2009.
- “The Moderating Factors in Quality Signal” (with Anand Gopal and Ritu Agarwal), *CIST/INFORMS*, 2009
- “How Does CMM Certification Create Value? Service Diversification, Location, and Competition in the Indian Software Exports Industry” (with Anand Gopal and Ritu Agarwal), *Workshop on Information Systems Economics (WISE)*, Paris, France, 2008

- “The Long Tail is Longer Than You Think”, (with Joseph Bailey and Hank Lucas), *Workshop on Information Systems Economics (WISE)*, Paris, France, 2008
- "The Value of Trust Seals in Online Commerce" (with Ozpolat, K., Jank W., Vishwanathan S.), *Decision Sciences Institute Annual Conference (DSI)*, Baltimore, 2008
- “Revealing Yourself Online: Quality Disclosure in California Hospitals” (with Ritu Agarwal, Corey Angst, Adams Dudley and Jiban Khuntia), presented at the *Workshop on Information Systems Economics (WISE)* 2007, Montreal, Canada.
- “Quality Certification as Signal” (with Anand Gopal), presented at the *Workshop on Information Systems Economics (WISE)* 2007, Montreal, Canada
- “To CMM or Not to CMM? Antecedents and Consequences of CMM Certification in the Indian Offshore Industry” (with Anand Gopal), *Proceedings of the 27<sup>th</sup> International Conference on Information Systems (ICIS)*, Montreal, Canada
- “The Long Tail of Online Retailing”, with Joe Baily, Wolfgang Jan, Mingfeng Lin and Hank Lucas, Siva Viswanathan, in progress, present at the *2007 Statistical Challenges in eCommerce conference* at Connecticut.
- “Consumer informedness and diverse consumer purchasing behaviors: Traditional mass-market, trading down, and trading out into the long tail” (with Eric Clemons), presented at the *Workshop on Information Systems Economics (WISE)* 2006 (acceptance rate: 34%)
- “When Online Review Meets Hyperdifferentiation: a Study of Craft Beer Industry” (with Eric Clemons and Lorin Hitt), *39th Hawaii International Conference on System Sciences (HICSS)*, 2006; and *Workshop on Information Systems Economics (WISE)* 2004
- “The Dynamics of Online Reviews” (with Mingfeng Lin and Bin Gu), presented at the *Workshop on Information Systems Economics (WISE)* 2006 (acceptance rate: 34%)
- “IT and Product Variety: Evidence from Panel Data” (with Lorin Hitt), *Proceedings of the 25<sup>th</sup> International Conference on Information Systems (ICIS)*, Washington DC, 2004 (acceptance rate: 16%), **1st Runner-up for Best Overall Paper Award.**
- “How Product Variety Influences Firm Performance and JIT adoption” (with Gerard Cachon and Lorin Hitt), *INFORMS Annual Meeting, Denver, 2004*
- “The Economics of Telecommuting: Theory and Evidence” (with Lorin Hitt), *Proceedings of the 24<sup>th</sup> International Conference on Information Systems (ICIS)*, Seattle, 2003

## HONORS, AWARDS, AND GRANTS

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- Best Conference Paper Award, Informs/CIST, 2015
- National Science Foundation CAREER Award (\$417,108), 2013
- *Management Science* Meritorious Service Award, 2013
- College of Healthcare Operations Management (CHOM) Best Paper Award Finalist, 2012
- Diana Forsythe Award Finalist at the American Medical Informatics Association (AMIA) conference, 2012
- Best Working Paper Award (first place), Dingman Center, 2011
- Top 15% Teaching Award of Smith School, University of Maryland (across all courses taught in 2007-2008 year)
- Lockheed Martin research grant on Intensive Care Unit (ICU) productivity, \$300,000, 2011-2012.
- AHRQ Grant Program for Large Conference Support: 2011-2013 Workshop on Health IT and Economics (WHITE). \$56,850.
- Summer research grant (\$5,143), University of Maryland, Center for Health Information and Decisions Systems, 2010
- Research grant (\$5,000), Amazon.com, 2008
- Business and International Education (BIE) grant (\$4,000), University of Maryland, 2006

- General Research Board (GRB) Summer Research Award (\$8,700) University of Maryland, 2006
- University of Pennsylvania Research Foundation Grant (\$18,500), 2004-2005 (with Lorin Hitt) for research on IT and product variety
- Fishman-Davidson Center Grant (\$11,500), the Wharton School, 2004-2005 (with Lorin Hitt) for research on product variety's impacts on firm production efficiency and financial performance
- ICIS Doctoral Consortium, 2004
- Wharton Doctoral Fellowship, University of Pennsylvania, 2000-2004
- Honored Graduate, Tsinghua University, 1998
- Winner of the first Business Plan Competition in China, team leader, 1998
- Patent: ZL 98 2 07602.9, "Ozone Cleaner for Vegetables and Fruits", China, 1998
- Ranked Top 10 among over 400,000 students in the National College Entrance Examination in Shandong province, China, 1993

## TEACHING

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- BMGT758B: Big Data
- BUSI622: Managing Digital Businesses and Markets (MBA Core/Selective), 2009, 2011-2015
- BMGT808O: PhD Seminar on Current Research in Information Systems, 2008, 2010, 2013
- BMGT301: Introduction to Information Systems (undergraduate core course), 2006 -2014

## SERVICES AND ASSOCIATIONS

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- Associate Editor, Management Science, 2015-
- Associate Editor, MIS Quarterly, 2014-2015
- Program Co-Chair, BDAH 2014 - 2nd International Conference on Big Data and Analytics in Healthcare
- National Science Foundation (NSF) review panel, 2013, 2014
- Elected to the Smith School Faculty Council, 2012-2013
- Founding member and program co-chair of the annual Workshop on Health IT and Economics (WHITE) 2010-2013
- Co-director of the Center for Health Information and Decision Systems (CHIDS), 2011-
- Co-editor for special issue on Health IT and Economics at *Health Systems* 2012
- Co-editor for special issue on eHealth at the *Journal of Policy and Internet*, 2011
- Editorial board of the new journal *Health Systems*, 2011
- Associate Editor for ICIS 2009-2015
- Track chair of Health IT for AMCIS 2011, 2012
- Track co-chair of Health IT for PACIS 2012
- CIST program committee, 2008-2012
- Invited Session Chair in INFORMS Annual Meeting 2004, 2008, 2011
- External Reviewer for Hong Kong Research Grants Council, 2011
- Senior Editor for special issue at *Production and Operations Management (POMS)*, 2010
- Referee

JAMA, Health Affairs, Management Science, Information Systems Research (ISR), Journal of Management Information Systems (JMIS), Manufacturing & Service Operations Management (MSOM), MIS Quarterly (MISQ), Decision Support Systems (DSS), Information and Management, Journal of Operations Management, Journal of Consumer Behavior, European Journal of Information Systems, International Conference on Information Systems (ICIS), Hawaii International Conference on System Sciences (HICSS), Conference

on Information Systems and Technology (CIST)

- Membership
  - AcademyHealth and iHEA
  - American Society of Health Economists (Ashe)
  - Association for Information Systems (AIS)
  - Institute for Operations Research and the Management Sciences (INFORMS)
  - American Economic Association (AEA)

## MEDIA COVERAGE

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- 2014: US News and World Report, Yahoo Health, Philadelphia Inquirer, NY Newsday, WebMD, Health Magazine, MedicineNet
- Previous years: The Washington Post, The Reuters, NPR news, Science of Better podcast (INFORMS news release), Medical News Today, iHealthBeat, Health 2.0 DC chapter Youtube channel

## INDUSTRY COLLABORATION

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- Amazon.com
- American Board of Internal Medicine
- CareFirst BlueCross BlueShield
- Lockheed Martin
- Shock Trauma Center of University of Maryland Medical Center
- UMMC/Veterans Affairs in Baltimore
- US Army