

## 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

2019- Professor, R. H. Smith School of Business, University of Maryland

2013-2019 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 and AI 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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**Total citations: 2,639.** H-index: 18, i10-index: 22 (Feb 2019, from Google Scholar)

- Sun, T., **Gao, G.**, and Jin, G. (2018) "Mobile Messaging for Offline Social Interactions: a Large Field Experiment", *Management Science*, forthcoming  
(**Best Conference Paper Award** at Informs/CIST 2015)
- Liu, C., **Gao, G.**, and Agarwal, R. (2018) "Unraveling the 'Social' in Social Norms: The Conditioning Effect of User Connectivity", *Information Systems Research*, accepted.  
(**Best Conference Paper Award runner up** at ICIS 2016)
- Dugas, M., Crowley, K., **Gao, G.**, Xu, T. Agarwal, R., Krgulanski, A., Steinle, N. (2018) "Individual Differences in Regulatory Mode Moderate the Effectiveness of a Pilot mHealth Intervention for Diabetes Management among Older Veterans", *PLOS ONE*
- Hao, H., Zhang, K., Wang, W., **Gao, G.** (2017) "A tale of Two Countries: International Comparison of Online Doctor Reviews Between China and the United States", *International Journal of Medical Informatics*, 99, pp.37-44
- Goh, J. M., **Gao, G.**, Agarwal, R. (2016) "The Creation of Social Value: Can an Online Health Community Reduce Rural-Urban Health Disparities?" *MIS Quarterly*, 40(1), pp.247-263.

- **Gao, G.**, Greenwood, B., Agarwal, R., McCullough, J. (2015) “Vocal Minority and Silent Majority: How Do Online Ratings Reflect Population Perceptions of Quality?” *MIS Quarterly*, 39(3), pp.565-589.  
(**MIS Quarterly Paper of the Year Award**)
- Gray, B., Vandergrift, J., **Gao, G.**, McCullough, J., Lipner, R. (2015) “Website Ratings of Physicians and Their Quality of Care”. *JAMA Internal Medicine*, 175(2), pp.291  
(Impact factor: 15.04, ranked #2 among internal medicine journals. *JAMA* is widely regarded as one of the top 3 medical journals, together with the *New England Journal of Medicine* and *Lancet*)
- Anderson, D., **Gao, G.**, Golden, B. “Life is All about Timing: An Examination of Differences in Treatment Quality for Trauma Patients Based on Hospital Arrival Time”, *Production and Operations Management*, 23(12), pp.2178–2190
- Ye, S., **Gao, G.**, Viswanathan, S. (2014) “Strategic Behavior in Online Reputation Systems: Evidence from eBay”, *MIS Quarterly*, 38(4), pp.1033–1056.
- Angst, C., Agarwal, R., **Gao, G.**, Khuntia, J., and McCullough, J. (2014) “Information Technology and Voluntary Quality Disclosure by Hospitals”, *Decision Support Systems*, 57(1), pp.367-375.
- Özpolat, K., **Gao, G.**, Jank, W., & Viswanathan, S. (2013). “The Value of Third-Party Assurance Seals in Online Retailing: An Empirical Investigation. *Information Systems Research*, 24(4), pp.1100–1111.
- **Gao, G.** and Hitt, L. (2012) “Information Technology and Trademarks: Implications to Product Variety”, *Management Science*, 58(6), pp.1211-1226
- **Gao, G.**, McCullough, J. S., Agarwal, R., & Jha, A. K. (2012). “A Changing Landscape of Physician Quality Reporting: Analysis of Patients’ Online Ratings of Their Physicians Over a 5-year Period.” *Journal of Medical Internet Research*, 14(1), e38.  
(Impact factor: 4.7, ranked #1 in Medical Informatics, and #2 in Health Sciences/Health Services Research)
- Goh, J. M., **Gao, G.**, & Agarwal, R. (2011). “Evolving Work Routines: Adaptive Routinization of Information Technology in Healthcare.” *Information Systems Research*, 22(3), pp.565-585.
- **Gao, G.**, Gopal, A. and Agarwal, R. (2010) “The Contingent Effects of Quality Signaling”, *Management Science*, 56(6) pp.1012-1029
- Dellarocas, C., **Gao, G.** and Narayan, R. (2010) “Are Consumers More Likely to Contribute Online Reviews for Hit Products or Niche products?” *Journal of Management Information Systems*, 27(2), pp. 127-158
- Agarwal, R., **Gao, G.**, DesRoches, C. and Jha, A. (2010) “The Digital Transformation of Healthcare: Current Status and the Road Ahead”, *Information Systems Research*, 21(4) pp.796-809
- Gopal, A., and **Gao, G.** (2009). “Certification in the Indian offshore IT services industry.” *Manufacturing & Service Operations Management*, 11(3) pp.471–492
- Carmel, E., **Gao, G.**, and Zhang, N. (2008) “The Maturing Chinese Offshore IT Services Industry: It Takes 10 Years to Sharpen a Sword”, *MIS Quarterly Executive*, 7(4), pp.157-170.
- Clemons, E. and **Gao, G.** (2008) “Consumer Informedness and Diverse Consumer Purchasing Behaviors: Traditional Mass-market, Trading Down, and Trading Out into the Long Tail”, *Electronic Commerce Research and Applications*, 7(1), pp.3-17
- Clemons, E., **Gao, G.** and Hitt, L. (2006) “When Online Review Meets Hyperdifferentiation: a Study of Craft Beer Industry”, *Journal of Management Information Systems*, 23 (2), pp.149 - 171

Papers under review

- Shukla, A., **Gao, G.**, and Agarwal, R. “How Digital Word-of- Mouth Affects Consumer Decision Making: Evidence from a Natural Experiment”, **minor revision** at *Management Science*

- Wang, W., Bjarnadottir, M., and **Gao, G.** “How AI Plays its Tricks: Interpreting the Superior Performance of Deep Learning-Based Approach in Predicting Healthcare Costs”, major revision at *Information Systems Research*
- Liu, C., Gao, G., and Agarwal, R. “Reciprocity or Self-Interest? Leveraging Digital Social Connections for Health”, target at *MIS Quarterly*
- Shukla, A., Wang, W., **Gao, G.**, and Agarwal, R. “Catch Me If You Can—Detecting Fraudulent Online Reviews of Doctors using Deep Learning”, under review at *Information Systems Research*
- Atabaki, S., Khuntia, J., Agarwal, R., **Gao, G.**, Chamberlain, J., Zeigler, R., Jacobs, B. “Cost Analysis of Reducing Unnecessary Cranial Computed Tomography Utilization among Children with Minor Blunt Head Trauma”, invited for 2<sup>nd</sup> review at *Applied Clinical Informatics*

## HONORS and AWARDS

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- *Management Science* Meritorious Service Award for Associate Editor, 2017
- NSF CAREER Award, 2013-2018
- Best Conference Paper first runner-up, ICIS, 2016
- MIS Quarterly Best Paper of the Year Award, 2016
- Best Conference Paper Award, Informs/CIST, 2015
- Cloudera Academic Partnership, 2014
- Amazon Web Services Teaching Grant, 2014
- *Management Science* Meritorious Service Award, 2013, 2014
- 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
- Best Conference Paper first runner-up, ICIS, 2004
- 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

## Grants

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### Awarded:

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| • NSF CAREER Award IIS-1254021 (\$417,108) My role: PI                                 | 2013-2018 |
| • AHRQ grant for “Conference on Health IT and Analytics” (\$150,000) My role: co-I     | 2018-2020 |
| • Inovalon-CHIDS Collaboration on Deep Learning  | 2017-2018 |
| • Leir Charitable Foundations (\$98,000). My role: co-PI                               | 2017-2018 |
| • MIPS grant (\$99,999). My role: PI   | 2016      |
| • MIPS grant (\$10,000). My role: PI   | 2015      |
| • Leidos research seed grant. \$50,000. My role: co-I                                  | 2015      |
| • AHRQ conference support for WHITE (\$35,000)   | 2014-2016 |
| • Lockheed Martin research grant on Intensive Care Unit (ICU) productivity (\$300,000) | 2011-2012 |

- AHRQ Grant Program for Large Conference Support (\$56,850) 2011-2013
- UMD Summer research grant (\$5,143) 2010
- Research grant (\$5,000), Amazon.com 2008
- Business and International Education (BIE) grant (\$4,000), University of Maryland 2006
- UMD General Research Board (GRB) Summer Research Award (\$8,700) 2006

## RECENT INVITED TALKS

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- 2019: University of Minnesota (B-school), Penn State (School of Public Health)
- 2018: Temple University (B-school), Penn State (B-school), University of Utah (B-school), University of Georgia (College of Public Health)
- 2017: University of Washington (B-school)
- 2016: Michigan State University (B-school), George Mason University (College of Health and Human Services)
- 2015: University of Rochester (B-school), University of Texas at Dallas (B-school)
- 2013: Johns Hopkins University (School of Medicine), American Board of Internal Medicine
- 2012: University of Minnesota (B-school), Rochester (Medical Center), George Mason Medical Center, Lehigh University (Health Systems Engineering symposium).

## TEACHING

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- **(New course development)** BMGT408E: Big Data and Artificial Intelligence for Business, scheduled for 2017 fall.
- **(New course development)** BMGT758C: Big Data and AI for P-MBA, 2016
- **(New course development)** BMGT758B: Big Data and AI for MSIS, 2015-
- BUSI622: Managing Digital Businesses and Markets (MBA Core/Selective), 2009, 2011-2015
- BMGT808: PhD Seminar on Current Research in Information Systems, 2008, 2010, 2013, 2014, 2017
- 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, 2014.1-2015.12
- Track co-chair, ICIS 2019
- Co-director, Center for Health Information and Decision Systems (CHIDS), 2011-
- Initiator and Co-founder of "Big Data in Action" meetup in DC (with over 400 members), 2016-
- Smith School organizer for the MBA Mashup at Healthdatapalooza, 2017
- Director of the Smith School IS undergraduate Program, 2013-
- Co-Chair, Workshop on Health IT and Economics, 2010-
- Co-Chair, DOIT Faculty recruiting committee, 2015-2016
- Guest co-editor, Special Issue on Big Data and Analytics in Healthcare, IS Frontiers, 2015
- Guest co-editor, Focus Theme on Big Data and Analytics in Healthcare, Methods of Information in Medicine, 2015
- Smith School Undergraduate Grade Dispute Committee, 2014-2015
- UMD Banneker Key scholarship review and interview committee, 2013
- UMD-UMB Seed Grant Program reviewer, 2013

- Program Co-Chair, BDAH 2014 - 2nd International Conference on Big Data and Analytics in Healthcare
- National Science Foundation (NSF) review panel, 2013, 2014
- Smith School Faculty Council, 2012-2013
- Smith School Research Computing Committee, 2012
- 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 2009-2017
- Track chair of Health IT for AMCIS 2011, 2012
- Track co-chair of Health IT for PACIS 2012
- CIST program committee, 2008-2016
- 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)

## PhD STUDENT SUPERVISION

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- Chair/co-chairs: Vicki Wolcott (graduated), Aishwarya Shukla, Weiguang Wang
- Committee member: Dongwon Lee, Tianshu Sun, Shun Ye, Chewei Liu, JM Goh, Jiban Khuntia, Brad Greenwood, Koray Ozpolat, Sheraz Daniel, Abrar Al-Hasan, Dobin Yim

## MEDIA COVERAGE

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- The Wall Street Journal, The Washington Post, NPR news, US News and World Report, XM Satellite Radio, Science Daily, The Reuters, Science of Better podcast (INFORMS news release), Medical News Today, iHealthBeat, Yahoo Health, Philadelphia Inquirer, NY Newsday, WebMD, Health Magazine, MedicineNet

## INDUSTRY COLLABORATION

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- Amazon.com
- American Board of Internal Medicine
- CareFirst BlueCross BlueShield
- FDA
- Kaiser Permanente

- NIH
- Shock Trauma Center of University of Maryland Medical Center
- UMMC/Veterans Affairs in Baltimore