

Weiguang¹ Wang

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Positions

- Assistant Professor, University of Rochester, Simon Business School, 2021-
- Research Scholar, Inovalon Health Insights AI Lab, 2017-2020
- Oak Ridge Institute for Science and Education (ORISE) Fellow, the Food and Drug Administration (FDA), 2018-2019

Education

Ph.D. Information Systems, Robert H. Smith School of Business, University of Maryland, College Park

Master of Management Science, Institute of Policy and Management, Chinese Academy of Sciences

Bachelor of Management Science, School of Management, University of Science and Technology of China

Completed Working Papers

1. “Friend or Foe? The Interaction between Human and Artificial Intelligence on Performance in Medical Chart Coding.” with Gordon Gao, and Ritu Agarwal (Accepted at Management Science)
2. “The Virtualization of Large Social Events: Effects on Platform Users.” with Chewei Liu, Guodong Gao, and Ritu Agarwal (Accepted at Management Science)
3. “How mHealth Helps Informationally Disadvantaged Mothers: The Role of Family Information Provision and Social Structure.” with Yanfang Su (co-first author), Gordon Gao, and Ritu Agarwal
4. “Socializing Social Bots on Social Media.” Sole author.
5. “Knowledge Trap: Human Experts Distracted by Details When Teaming with AI.” with Xiaopei Liu, Xi Zhang, and Yili (Kevin) Hong
6. “Heterogenous Patient Responses to Healthcare Data Breach.” with Junyuan Ke, and Natasha Z Foutz
7. “Cables for Bottles? The Role of Digital Divide in Crime-related Alcohol Consumption.” with Fanruo Wang, and Natasha Z Foutz
8. “Just Like Us: Does Knowledge Fame Influencers?” with Ningning Cheng, Hongfei Li, and Yili (Kevin) Hong
9. “Impact of Product and Platform Level Sampling on the Sale of Online Video Courses.” with Xiaopei Liu, Ravi Mentena, and Xi Zhang
10. “When Social Connection Becomes Lethal: Exploring Users’ Adaptations of Online Sharing on a Physical Activity Platform Under Radical Environmental Change.” with Chewei Liu, Guodong Gao, and Ritu Agarwal
11. Weiguang Wang, Min Chen, Gordon Gao, and Jeffrey S. McCullough, “Every Bit Counts: Using Deep Learning and Vectorization to Analyze Healthcare Big Data.”
12. Aishwarya Shukla, Weiguang Wang, Gordon Gao, and Ritu Agarwal, “Catch Me If You Can-Detecting Fraudulent Online Reviews of Doctors Using Deep Learning.”
13. Weiguang Wang, Margrét V. Bjarnadóttir, and Gordon Gao, “How AI Plays Its Tricks: Interpreting the Superior Performance of Deep Learning in Cost Prediction.”

Research in Progress

14. Can You Hear Me? Social Cost of YouTube’s Anti-Spam Policy on the Deaf Community, with Junyuan Ke.
15. Is Cellphone Use Disturbing Our Mental Health? The Evidence from BRFSS and the National Radio Quiet Zone, with Gordon Gao.
16. Can AI Crack the Code of Success in Online Coaching? Evidence from Affective Computing.

¹ Pronunciation of my first name is similar to “We-One”.

Journal Papers

1. Weiguang Wang, Junjie Luo, Michelle Dugas, Guodong (Gordon) Gao, Ritu Agarwal, Rachel M. Werner, 2022, "Recency of Online Physician Ratings." **JAMA Internal Medicine (Impact Factor 44.46 in 2022)**.
2. Weiguang Wang, Natasha Z Foutz, Guodong (Gordon) Gao, 2022, "Huddling with Families after Disaster: Human Resilience and Social Disparity." **PLOS One**.
3. Michelle Dugas, Weiguang Wang, Kenyon Crowley, Anand Iyer, Malinda Peeples, Mansur Shomali, and Guodong (Gordon) Gao, 2020, "Engagement and Outcomes Associated with Contextual Annotation Features of a Digital Health Solution." **Journal of Diabetes Science and Technology**.
4. Yiye Zhang, Richard Trepp, Weiguang Wang, Jorge Luna, David K. Vawdrey, and Victoria Tiase, 2018, "Developing and maintaining clinical decision support using clinical knowledge and machine learning: the case of order sets." **Journal of the American Medical Informatics Association**.
5. Niam Yaraghi, Weiguang Wang, Gordon Gao, and Ritu Agarwal, 2018, "How Online Quality Ratings Influence Patients' Choice of Medical Providers: Controlled Experimental Survey Study." **Journal of Medical Internet Research**.
6. Haijing Hao, Kunpeng Zhang, Weiguang Wang, and Gordon Gao, 2017, "A tale of two countries: International comparison of online doctor reviews between China and the United States." **International Journal of Medical Informatics**.
7. Feng Feng, Leiyong Zhang, Yuneng Du, and Weiguang Wang, 2015, "Visualization and quantitative study in bibliographic databases: A case in the field of university–industry cooperation.", **Journal of Informetrics**.
8. Xi Zhang, Weiguang Wang, Patricia Ordóñez de Pablos, Jing Tang, and Xiangda Yan, 2015, "Mapping development of social media research through different disciplines: Collaborative learning in management and computer science.", **Computers in Human Behavior**.
9. Xi Zhang, Patricia Ordóñez de Pablos, Xiaojiong Wang, Weiguang Wang, Yongqiang Sun, and Jinghui She, 2014, "Understanding the users' continuous adoption of 3D social virtual world in China: A comparative case study", **Computers in Human Behavior**.

Conference and Workshop Presentations

1. Yizhi Liu, Weiguang Wang, Gordon Gao and Ritu Agarwal, "People Talking and AI Listening: How Stigmatizing Language in EHR Notes Affects AI Performance and Fairness", Conference on Health It and Analytics (CHITA), Washington DC, May 5-6, 2023.
2. Weiguang Wang, Xiaopei Liu, and Xi Zhang, "Knowledge Trap: Encyclopaedical Experts Think Too Much of Details to Team with Concentrated AI", 2022 INFORMS Annual Meeting, Indianapolis, IN, October 16-19, 2022.
3. Junyuan Ke, and Weiguang Wang, "Can You Hear Me? Social Cost of YouTube's Anti-Spam Policy on the Deaf Community", 2022 INFORMS Annual Meeting, Indianapolis, IN, October 16-19, 2022.
4. Xiaopei Liu, Ravi Mentena, Xi Zhang, and Weiguang Wang, "Impact of Product and Platform Level Sampling on the Sale of Online Video Courses", Pacific Asia Conference on Information Systems (PACIS), July 5-9, 2022.
5. Chewei Liu, and Weiguang Wang, "When High Social Connection Becomes Lethal: Exploring the User Adaptation to Radical Environmental Changes on a Physical Activity Platform", Conference on Health It and Analytics (CHITA), March 4-5, 2022.
6. Junyuan Ke, Weiguang Wang, and Natasha Foutz, "Consumer Response to Healthcare Cybersecurity Crisis: Insights from Location Big Data", Conference on Health It and Analytics (CHITA), March 4-5, 2022.
7. Weiguang Wang, Yanfang Su, Gordon Gao, and Ritu Agarwal, "mHealth in Need is mHealth Indeed: mHealth's Effect and Low Family Informational Support", Workshop on Information Systems and Economics (WISE), Austin, TX, December 16-17, 2021.

8. Junyuan Ke, Weiguang Wang, and Natasha Foutz, “Consumer Response to Healthcare Cybersecurity Crisis: Insights from Location Big Data”, Journal of Marketing Research 2021 Mitigation in Marketing Research Workshop, September 20-21, 2021.
9. Maya Mudambi, Kenyon Crowley, Michelle Dugas, Weiguang Wang, Di Hu, Anand K. Iyer, Malinda Peeples, Mansur Shomali, Guodong (Gordon) Gao, “Predicting Success with a Diabetes mHealth Application from Early Usage Data”, Virtual Diabetes Technology Meeting, November 12-14, 2020.
10. Weiguang Wang, Natasha Zhang Foutz, and Gordon Gao, “Family Bonding in Disruptive Natural Disaster”, 2020 INFORMS Annual Meeting, National Harbor, MD, November 8-11, 2020. (RUNNERS-UP for the eBusiness Section Best Paper Award)
11. Chewei Liu, Weiguang Wang, Guodong Gao, and Ritu Agarwal, “The Virtualization of Large Social Events: Effects on Platform Users”, Conference on Information Systems and Technology (CIST), November 7-8, 2020.
12. Chewei Liu, Weiguang Wang, Guodong Gao, and Ritu Agarwal, “The Virtualization of Large Social Events: Effects on Platform Users”, Conference on Health It and Analytics (CHITA), October 8-10, 2020.
13. Allan Fong, Shima Fitzbiggins, Jack Sava, Weiguang Wang, Nicholas R. Wegener, James Christian, Erin C. Hall, “Correlating Physiologic Measures of Stress: Exploring Dyads in Clinical Surgical Teams”, 64th International Annual Meeting of Human Factors and Ergonomics Society (HFES), October 5-9, 2020.
14. Weiguang Wang, Gordon Gao, and Ritu Agarwal, “Friend or Foe? The Influence of Artificial Intelligence on Human Performance in Medical Chart Coding”, Conference on Information Systems and Technology (CIST), Seattle, WA, October 19-20, 2019.
15. Weiguang Wang, Gordon Gao, and Ritu Agarwal, “Friend or Foe? The Influence of Artificial Intelligence on Human Performance in Medical Chart Coding”, INFORMS Healthcare, Boston, MA, July 27-29, 2019.
16. Weiguang Wang, Yanfang Su, Gordon Gao, and Ritu Agarwal, “Determinants of mHealth Effectiveness: Evidence from a Large-Scale Experiment”, INFORMS Healthcare, Boston, MA, July 27-29, 2019.
17. Michelle Dugas, Kenyon Crowley, Weiguang Wang, Anand K. Iyer, Malinda M. Peeples, Mansur Shomali, Guodong Gao, “Beyond Tracking: The Benefits of Contextual Annotation in a Diabetes Digital Therapeutic.”, American Diabetes Association’s 79th Scientific Sessions, San Francisco, CA, June 7-11, 2019.
18. Weiguang Wang, Kenyon Crowley, Michelle Dugas, Anand K. Iyer, Malinda M. Peeples, Mansur Shomali, and Guodong (Gordon) Gao, “Early Engagement Measures Can Accurately Identify Users at Risk of Abandoning Digital Therapeutics in Type 2 Diabetes.”, AcademyHealth 2019 Annual Research Meeting, Washington, DC, June 2-4, 2019.
19. Michelle Dugas, Weiguang Wang, Kenyon Crowley, Anand K. Iyer, Malinda M. Peeples, Mansur Shomali, Guodong Gao, "A Novel Approach to Assess Patient Burden Using Data from a Digital Therapeutic for Type 2 Diabetes Predicts Glucose Outcomes.", Association for Psychological Science Annual Convention, Washington, DC, May 23-26, 2019.
20. Weiguang Wang, Margrét V. Bjarnadóttir, and Gordon Gao, “How AI Plays its Tricks: Interpreting the Superior Performance of Deep Learning-Based Approach in Prediction.”, POMS 30th Annual Conference, Washington DC, May 2-6, 2019.
21. Weiguang Wang, “Using Deep Learning to Improve Healthcare Quality and Efficiency.”, Workshop on Information Technologies and Systems (WITS), Santa Clara, CA, December 16-18, 2018. (Best Dissertation proposal Nominee)
22. Aishwarya Deep Shukla, Weiguang Wang, Gordon Gao, and Ritu Agarwal, “Catch Me If You Can - Detecting Fake Online Reviews Using Deep Learning.”, Workshop on Information Systems and Economics (WISE), San Francisco, CA, December 17-18, 2018.
23. Haijing Hao, Hongtu Chen, Sue Levkoff, Weiguang Wang, and Dan Zhu, “What Can Online Support Provide for Caregivers of Patients with Alzheimer’s Disease in China? A Text Mining Approach Toward Online Health Communication.”, 2018 HITS- Health Information Technology Symposium, San Francisco, CA, December 13, 2018.

24. Weiguang Wang, Margrét V. Bjarnadóttir, and Gordon Gao, “How AI Plays its Tricks: Interpreting the Superior Performance of Deep Learning-Based Approach in Prediction.”, Conference on Health IT and Analytics (CHITA), Washington DC, October 19-20, 2018.
25. Weiguang Wang, Min Chen, Gordon Gao, and Jeffrey S. McCullough, “Surfing the Ocean of Digital Health Data: A Deep Learning Approach to Precise Readmission Prediction”, Conference on Information Systems and Technology (CIST), Phoenix, AZ, November 3-4, 2018.
26. Weiguang Wang, Margrét V. Bjarnadóttir, and Gordon Gao, “Deep-learning-based Approach for Precise Health Cost Prediction.”, INFORMS Annual Meeting, Phoenix, AZ, November 4-5, 2018.
27. Weiguang Wang and Gordon Gao, “A Deep Learning Approach to Better Understanding of Hospital Quality.”, INFORMS Annual Meeting, Phoenix, AZ, November 4-5, 2018.
28. Weiguang Wang, Helen Jiang, Asiyah Yu Lin, Zhou Feng, Tony Du, and Nilsa Loyo-Berrios, “Test Mining on Medical Device Report (MDR) for Postmarked-Surveillance and Evaluation of Breast Implant Associated Anaplastic Large Cell Lymphoma (BIA-ALCL)”, FDA Annual Summer Student Scientific Poster Day, White Oak, MD, August 1, 2018.
29. Mark Jung, Michael Wu, Asiyah Yu Lin, Helen Jiang, Weiguang Wang, Zhou Feng, Tony Du, and Nilsa Loyo-Berrios, “Building a Comprehensive Breast Implant Ontology Leveraging GUDID and Unstructured Data Sources”, FDA Annual Summer Student Scientific Poster Day, White Oak, MD, August 1, 2018.
30. Yanfang Su, Weiguang Wang, Benjamin Campbell, and Gordon (Gordon) Gao, “How can mHealth Keep New Moms out of the Blue? Evidence of the Heterogeneous Treatment Effects on Depression from a Large-Scale Field Experiment”, 2017 Connected Health Conference (CHC17), Boston, MA, October 25-27, 2017.
31. Chewei Liu, Weiguang Wang, Gordon Gao and Ritu Agarwal, “Leveraging Social Norms and Implementation Intentions for Better Health”, International Conference for Smart Health (ICSH), Hong Kong, China, Jun 26-27, 2017. (ICSH 2017 Best Paper Nominee)
32. Weiguang Wang and Gordon Gao, “The Role of Quality and Competition in Physician Public Reporting: The Case of PQRS”, Bridging the Minds in Health Policy: 1st Conference of CHPAMS & CHR, Atlanta, GA, May 13-15, 2016.
33. Aishwarya Shukla, Weiguang Wang, Gordon Gao, and Ritu Agarwal, “Using Machine Learning to Analyze Fraudulent Reviews”, The 7th Annual Workshop on Health IT and Economics (WHITE 2016), Washington DC, October 21-22, 2016.
34. Weiguang Wang, Niam Yaraghi, Gordon Gao, and Ritu Agarwal, “How Online Comments and Government Ratings Affect Patients’ Opinion of Medical Providers?”, INFORMS Annual Meeting, Nashville, TN, November 13-16, 2016.
35. Weiguang Wang and Gordon Gao, “Voluntary Quality Disclosure among Physicians: The Case of PQRS”, International Conference on Information Systems 2016 (ICIS 2016), Dublin, Ireland, December 11-14, 2016.

Talks

- 2020 Tianjin University, Institute of Policy and Management, Chinese Academy of Sciences
- 2021 CMU-Pitt Seminar on Information Technology & Economics (SITE)

Professional Activities

- Founding member of the Health Insights AI Lab (with \$300,000 start funding) in University of Maryland, 2015-2020
- Ad Hoc Reviewer for: Management Science, Information Systems Research, MIS Quarterly, INFORMS Journal on Data Science, International Conference of Information Systems (ICIS), Pacific Asia Conference on Information Systems (PACIS), Conference on Information Systems and Technology (CIST), Workshop on Information Technologies and Systems (WITS), IEEE International Conference on Big Data, INFORMS Workshop on Data Science, Information Systems Frontiers, Winter Conference on Business Analytics (WCBA)
- Session chair of WISE 2021, and INFORMS Annual Meeting 2022

- Associate editor of ICIS 2023, Member of the Program Committee of CIST 2022, CIST 2023

Media

- Public Health Post: <https://www.publichealthpost.org/research/huddling-with-families-after-disaster/>