CALL FOR PAPERS
A Special Issue on Big Data and Analytics in Healthcare

Data analytics is already making large impacts in finance, manufacturing, retail, and social networks. The healthcare industry, too, is undergoing dramatic transformation in promoting patient centric services and evidence based reasoning in treatment and care delivery. Big data will play an important role in this transformation. Thus, there is growing interest in efficient healthcare data acquisition, processing and analysis across different healthcare organizations. However, current healthcare information systems are still lacking in successful implementation of big data solutions. The heterogeneous and rapidly expanding nature of healthcare data also poses challenges for big data projects. In the face of these challenges, this special issue is intended for IS researchers to disseminate cutting-edge research that provides insights into the challenges, opportunities, novel strategies, and analytic tools and techniques for dealing with big data in healthcare.

Some indicative themes might include:

- Health services perspectives
  - Data-driven optimal planning and scheduling
  - Using analytics to improve healthcare outcomes (patient safety, medical error reduction etc.)
  - Developing data-driven systems that better support patient-provider interaction
  - Improving healthcare workflow and process efficiency
  - Supporting practice at a distance (telehealth)

- Public health perspectives
  - Improving government and community health policy making
  - Detecting disease outbreaks & biological threats using analytics
  - Systems for monitoring and managing population health
  - Delivering health information and knowledge to the public

- Consumer health perspectives
  - Personal health records
  - Self-care systems
  - Social media
  - Internet health

Forms of submission
The areas covered by this special issue have been attractive topics at conferences such as the BDAH 2014 Conference on Big Data and Analytics in Healthcare, Singapore. In the case of papers from the conference, the submission is required to be a substantial revision of the conference publication and the authors will be required to submit a letter detailing the difference between their conference paper and the new version. All submitted papers will go through peer review and if the paper does not receive a satisfactory review, it will not be considered for the special issue.

Submission Instruction
Manuscripts must be submitted to the ISF-Springer online submission system at:
http://www.editorialmanager.com/isfi/.

Paper submissions must conform to the format guidelines of Information Systems Frontiers available at:
http://www.springer.com/business/business+information+systems/journal/10796

Submissions should be approximately 32 pages double spaced including references.
Guest Editors

Atreyi Kankanhalli  
National University of Singapore  
Email: atreyi@comp.nus.edu.sg

Jungpil Hahn  
National University of Singapore  
Email: jungpil@comp.nus.edu.sg

Sharon Tan  
National University of Singapore  
Email: tansl@comp.nus.edu.sg

Gordon Gao  
University of Maryland  
Email: ggao@rhsmith.umd.edu

Senior Guest Editors  
Hock-Hai Teo, National University of Singapore  
Danny Poo, National University of Singapore

Important Dates

Paper submission deadline: 15th October 2014  
Initial review report: 15th February 2015  
Final Revised Manuscript: Due 15th May 2015  
Publication Issue TBA

About the Guest Editors

Atreyi Kankanhalli is Associate Professor of Information Systems at the National University of Singapore (NUS). She serves as Assistant Dean (Research) and Coordinator of the Service Systems Innovation Research Laboratory at her School. She obtained her B. Tech. from IIT Delhi and Ph.D. from NUS. Her research interests are in knowledge management, IT enabled organizational forms including virtual teams, and IT-enabled innovation in service sectors such as e-Government and healthcare. Her work has appeared in premium journals such as MISQ, ISR, JMIS, JASIST, CACM, DSS, IJHCS, and EJIS among others. She has served or is serving as Associate Editor at ISR, MISQ, and Information and Management and member of the editorial board/ review board of several journals. She has received the IBM Faculty Award and ACM-SIGMIS 2003 Best Doctoral Dissertation award among others.

Jungpil Hahn is Associate Professor of Information Systems at the National University of Singapore (NUS). He received his Bachelors and MBA from Yonsei University and his PhD from the University of Minnesota. His current research interests include electronic commerce, human-computer interaction, systems design, and knowledge management. His research has appeared in such journals as Mgmt. Science, Org. Science, ISR, JMIS, DSS, ACM Trans. on CHI, and, Electronic Markets. Prior to moving to NUS, he was on the faculty at Purdue University and visited at CMU in between. He has been recognized as an Outstanding Reviewer by IEEE Internet Computing. He also received the Excellence in Teaching Award from the PhD Program at the Carlson School at Minnesota. He was recognized as a Krannert Distinguished Teacher at Purdue and was awarded as ISR Best Reviewer in 2009.

Sharon Tan is Assistant Professor of Information Systems at the National University of Singapore (NUS). She received her Ph.D. and M.Sc. from Carnegie Mellon University, and her B.Sc. Honours from NUS. Her research interests are in the areas of Health Informatics and Analytics and Knowledge Management. Her work has been published in MISQ, the proceedings of the International Conference of Information Systems (ICIS), and the Academy of Management (AoM) Conference among others. Her papers have won several awards including the Emerald Management Review Citation of Excellence award, the Best Paper Award of the 2009 Pre-ICIS workshop on HCI, and the Best Paper (Runners’ Up) Award of the 2002 ICIS. She is serving on the editorial boards of the Special Issue of Health IT and Economics for Health Systems, Journal of AIS special issue on Healthcare IT, and the Journal of Database Management.
Guodong (Gordon) Gao is Associate Professor in the Decision, Operations and Information Technologies Department at the Robert H. Smith School of Business at the University of Maryland. His research interests include IT's impact on Health care and innovation, and the transparency in service quality. His paper has been published or accepted at leading academic journals like Mgmt. Science, ISR, Manufacturing & Service Operations Management, JMIS, and MISQ Executive. He has presented extensively at various conferences like ICIS, WISE, INFORMS, CIST, AcademyHealth, AshEcon, and iHEA. His research has won several grants and best paper awards, including the National Science Foundation's CAREER Award. He received his B.S. in Electrical Engineering and B.A. in Economics from Tsinghua University, his M.B.A. from the Tsinghua and MIT Sloan Joint Program, and PhD in IS and Economics from the Wharton School of University of Pennsylvania.