About the Contributors

**Burcin Bozkaya** is an Associate Professor of Operations Management and the Associate Dean at Sabanci School of Management. Burcin earned his B.S. and M.S. degrees in Industrial Engineering at Bilkent University and his Ph.D. in Management Science at the School of Business of the University of Alberta. Prior to joining Sabanci University in 2004, Burcin worked as a Senior Operations Research Analyst at Environmental Systems Research Institute (ESRI), Inc., in Redlands, California. During this industry work experience, Burcin participated in and led many software development projects specializing in the applications of GIS and Operations Research in transportation and logistics optimization. In one such project, he received INFORMS Franz Edelman Finalist Award, for a project completed for Schindler Elevator Corporation. Since 2004, Burcin teaches courses on Operations Management, Geographic Information Systems, Customer Relationship Management with Location Intelligence, Quantitative Decision Making and Excel/VBA Programming. He conducts research on Spatial Analytics, Location Analysis, Transportation Network Planning and Vehicle Routing Optimization, and Combinational Optimization using Heuristic Algorithms, and has published in various international journals. He is a recipient of IEEE 2008 Best Paper Award, and the 2010 Canadian Operational Research Society’s Best Practice Prize. Burcin is a father of two and enjoys playing his guitar and flute, and traveling in his (not-so-easy-to-find) free time.

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Research’ by IBM Research Labs in 2009 and he won the ‘Big Data for Social Good’ datathon organized by Telefónica, the Open Data Institute and the MIT in 2013. His research interests lie at the intersection of Big Data, Computational Social Science, and Multimedia Information Systems.

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Yaniv Altshuler is the CTO and Chief Scientist of Athena Wisdom, and a researcher at MIT (Media Lab). He received his BA (with highest honors) in Computer Science at the Israeli Institute of Technology, and his MSc and PhD (with honors) in Computer Science at the Israeli Institute of Technology. Dr. Altshuler spent 3 years as a post-doc at MIT at the Human Dynamics group, headed by Prof. Alex Sandy Pentland. Dr. Altshuler specializes in big data, social physics, and network analysis. Dr. Altshuler has published over 60 academic papers and filed 15 patent applications. Dr. Altshuler’s works was covered by Harvard Business Review, Financial Times, Communications of the ACM, The Globe, IEEE Spectrum and others. He has published a book on Security and Privacy in Social Network, and a second one about Swarms and Network Intelligence.

Colin Arrowsmith is Associate Professor in the School of Mathematical and Geospatial Sciences at RMIT University. He holds a Doctor of Philosophy from RMIT as well as two masters’ degrees and a bachelor’s degree from the University of Melbourne, and a Graduate Diploma of Education from Hawthorn Institute of Education. Colin’s research interests include the application of geospatial information systems, including geographic information systems, geospatial science education, tourism impacts and behaviours, and film studies.

Selim Balcisoy received his PhD on Computer Science in 2001 from Swiss Federal Institute of Technology, Lausanne (EPFL). Between 2001 and 2004 he was Senior Research Engineer at Nokia Research Center Dallas. Dr. Balcisoy co-authored over 50 publications and has been granted with one U.S. patent. His research interests are augmented reality, data visualization and cultural heritage. He is an Associated Professor at Sabanci University, Istanbul since 2004 and founded VisioThink, a spatial business intelligence company in 2006.

Jonathan Bishop is an information technology executive, researcher and writer. He founded the Centre for Research into Online Communities and E-Learning Systems in 2005, now part of the Crocels Community Media Group. Jonathan’s research and development work generally falls within human-computer interaction. He has over 70 publications in this area, including on Internet trolling, cyber-stalking, gamifica-
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Jonathan is an assistant professor in the Epstein Department of Industrial and Systems Engineering at the University of Southern California. He received a Ph.D. in computational mathematics from ICME in Stanford University in 2009 and an A.B. in mathematics and music from Harvard College in 2005. He is the recipient of the 2013 INFORMS Computing Society (ICS) Prize, the 2014 Air Force Young Investigator Prize, the 2012 DARPA Young Faculty Award, and the 2010 INFORMS Interactive Session Prize. His research is supported by DARPA, the Office of Naval Research, the Air Force Office of Scientific Research, the National Science Foundation, the Minnesota Department of Transportation (MnDOT), and the Boeing Company, and has appeared in Operations Research, Scientific Reports, Transportation Science, the INFORMS Journal on Computing, and the ACM Transactions on Algorithms.

William Cartwright is a Professor of Cartography and Geographical Visualization in the School of Mathematical and Geospatial Sciences at RMIT University. He is a Past President of the International Cartographic Society. His major research interest is the application of integrated media to cartography and the exploration of different metaphorical approaches to the depiction of geographical information.

Ritu Chauhan is an Assistant Professor in Amity Institute of Biotechnology, Amity University, India. She completed her Doctorate in Computer Science from Hamdard University, New Delhi, India on Applications of Data Mining Techniques in Spatial Databases. She graduated from the University of Delhi, New Delhi, India. She has published numerous research articles in refereed international journals and conference proceedings and chapters in an edited book. Her main research interests are in the field of Data analysis in medical databases.

Raghuveer Devulapalli is a native of Hyderabad, India and has lived in the United States since 2009. He has an undergraduate and a Master’s degree in Aero-
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space Engineering from Indian Institute of Technology, Kharagpur. He came to the United States in pursuit of his PhD and joined Industrial Engineering department at University of Minnesota-Twin Cities in 2011. He worked on developing geometric partitioning techniques to solve geographic resource allocation problems. His research interests include operations research, geometric optimization and computational geometry. Raghuviree graduated with a PhD in 2014 and is currently working at Intel Corporation as a software engineer in the computational lithography group.

Candemir Doger is a software developer in SAP Development Center Turkey. He received his BSc. and MSc. degree in computer science from Sabanci University, Turkey, respectively in 2011 and 2015. Previously he worked as a freelance developer on various projects in Turkey and as a research intern in AVIZ project team at INRIA Saclay, France. He did his master thesis on Integrated Abstract and 3D-Spatial Data Visualization on Touch-Enabled Tablets. He is interested in information visualization and mobile platforms.

Mustafa Tolga Eren was born in Ankara, Turkey in 1984. He received his BSc and PhD degrees from Sabanci University on Computer Science and Engineering in 2006 and 2013, respectively. His interests include Real-time Visualization, Big Data Analytics, Data Visualization, Interactive Projection Mapping and Augmented Reality. He is currently employed at Huawei R&D, Turkey, as a Research Engineer.

Gebeyehu Belay Gebremeskel is a postdoctoral research fellow in Chongqing University, China. He received his PhD from Chongqing University, since July 2013, Master’s Degree from London South Bank University, UK and B. Sc. Degree from Alemaya University, Ethiopia. Dr. Gebeyehu gained solid experience in research and teaching in different positions and institutes. He also engaged and contributed fundamental professional skills in various IT projects and research activites. In his PhD and Master’s studying program, he published more than 25 academic papers, which includes journals, conference papers, book chapters, and other technical reports in his research area and computing field in general. His research interest includes Data Mining, Business Intelligence, Big Data, Machine Learning, Agent Technologies, Artificial Intelligence, Data cloud, and others in the field of computer science.

Zhongshi He is Professor and vice chair of the College of Computer Science in Chongqing University. He is also a distinguished lecturer and scientist in the college, and a Visiting Professor in a few other high standard, national and international universities. He received a B. Sc., masters in Applied Mathematics and PhD degree in Computer Science from Chongqing University, and Post-doctoral fellowship from Witwatersrand University in South Africa. His research and teaching activities have
focused on Machine Learning and Artificial Intelligence issues. He is a Masters, PhD, and Post-doctoral student supervisor. In his success, solid skills and interest to share his cumulative knowledge and experience, highly respected and honored in the college and in the University as a whole, and he is one of the top honored senior instructors. His research themes include workstation design based research projects in Machine Learning and Artificial Intelligence. Therefore, his research interests center on improving the understanding, design, and performance of Machine Learning, Image processing, Artificial Intelligence, Data Mining and Bioinformatics focusing on its applications and performance optimizations. In the Machine Learning arena, he has worked on many practical and applicable researches. He has explored complex and diversified research issues in Computer Science, which has made numerous contributions to the field. Most of his publications and conference presentations deal with organizational issues on various real-world research issues in Computer Science, which has made numerous contributions to the field. Most of his publications and conference presentations deal with organizational issues on various real-world research issues. He has given numerous invited talks and tutorials in the other universities too. Professor He is published many high standard journals, conference papers, and other technical reports. Besides his administrative duties, Professor He is a faculty member at the College of Computer Science and responsible for many executive and academic tasks.

Harleen Kaur is a Senior Assistant Professor at the Department of Computer Science, Hamdard University, New Delhi, India. She has previously served as a Research Fellow, United Nations University-International Institute for Global Health (UNU-IIGH), Malaysia. She gained her Doctorate in Computer Science on the topic of Applications of Data Mining techniques in Health care Management from Jamia Millia Islamia University, New Delhi, India. She graduated from the University of Delhi, New Delhi. She is the author to numerous research articles in refereed international journals and conference proceedings, and authored and edited books with Springer. Her main research interests focus on Predictive modeling, Data analysis with applications to medical databases, Medical decision making, Bayesian networks and visualization.

Erdem Kaya is pursuing a Ph.D. degree on Computer Science in Sabanci University. He received his BS and MS degrees on Computer Science from Turkish Naval Academy in 2005 and University of Wisconsin-Madison in 2012, respectively. He was honored with IS Academic Achievement Award in 2012 by International Student Services of UW-Madison. Having worked on various naval platforms as a naval officer, he is currently holding Modeling Engineer position in the Turkish Navy.
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**Matthew Kwan** holds a PhD from RMIT University, MBA from Melbourne Business School and a BSc(Hons) from the University of Melbourne. His main area of research is the analysis and visualization of locational data collected with mobile phones.

**Oren Lederman** is a graduate student in the Human Dynamics group at the MIT Media Lab. He holds a B.Sc. in Computer Science and Economics from Tel Aviv University, Israel. His professional experience includes serving five years as developer and team leader in the Israeli army, founding a mobile social network startup, developing and managing the data infrastructures team in an influencers-based marketing startup, and working as a research engineer at the Singapore-MIT Alliance for Research and Technology. His research interests include big data and behavioral data, group dynamics and innovation teams. He currently studies group dynamics and face-to-face interaction using wearable devices of his own design.

**Burak Memis** is a project management expert and a management consultant. He got his Bachelor’s degree in Industrial Engineering from Koç University. He worked for a telecommunications company to complete his graduation project regarding the analysis of subscriber data for Istanbul residents. After his graduation, he spent the first years of his career working in the defense industry as a project manager in Ankara, where he also got his MBA degree from Bilkent University. He is currently working as a healthcare systems consultant in projects varying from small-scale R&D activities to large-scale governmental projects.

**Nuria Oliver** (PhD, MIT 2000) is currently the Scientific Director and founder of the User, Data and Media Intelligence research team in Telefonica Research, working on data analytics, machine learning, user modeling and HCI in a variety of domains. She has written over 100 scientific publications with over 8000 citations. Nuria has 40 filed and granted patents. She is in the organizing and/or program committee of the top conferences in her research areas. She has received a number of awards, including a 10 Year Technical Impact Award (ACM ICMI), a Rising Start Award by the Women’s Forum for the Economy and Society (2009), MIT's TR100 Young Innovators Award (2004) and the First Spanish Award of EECS graduates (1994). She is senior member of the ACM and IEEE. Her work has been widely featured on multiple newspapers, magazines, radio and TV stations both in Spain and the US.
Alex “Sandy” Pentland directs MITs Human Dynamics Laboratory and the MIT Media Lab Entrepreneurship Program, co-leads the World Economic Forum Big Data and Personal Data initiatives, and is a Board member for Nissan, Motorola Mobility, Telefonica, and Harvard Business Review. He has previously helped create and direct MITs Media Laboratory, the Media Lab Asia laboratories at the Indian Institutes of Technology, and Strong Hospitals Center for Future Health. In 2012 Forbes named Sandy one of the ‘seven most powerful data scientists in the world’, along with Google founders and the CTO of the United States, and in 2013 he won the McKinsey Award from Harvard Business Review. He is among the most cited computational scientists in the world, and a pioneer in computational social science, organizational engineering, wearable computing (Google Glass), image understanding, and modern biometrics. His most recent book is ‘Social Physics,’ published by Penguin Press.

Neil Peterson is an undergraduate student studying Industrial and Systems Engineering at the University of Minnesota College of Science and Engineering, and minoring in Mathematics and Management. He became involved in the study of Voronoi diagrams with John Gunnar Carlsson and Raghuveer Devulapalli his sophomore year, studying how to best represent data using Voronoi diagrams. After graduation, Neil plans to seek employment in an engineering or managerial position. Outside of school, Neil enjoys singing, playing guitar and harmonica, and acting.

Carlo Ratti, an architect and engineer by training, practices in Italy and teaches at the Massachusetts Institute of Technology, where he directs the Senseable City Lab. He graduated from the Politecnico di Torino and the École Nationale des Ponts et Chaussées in Paris, and later earned his MPhil and PhD at the University of Cambridge, UK. Ratti has co-authored over 200 publications and holds several patents. His work has been exhibited worldwide at venues such as the Venice Biennale, the Design Museum Barcelona, the Science Museum in London, GAFTA in San Francisco and The Museum of Modern Art in New York. His Digital Water Pavilion at the 2008 World Expo was hailed by Time Magazine as one of the Best Inventions of the Year. He has been included in Esquire Magazine’s Best and Brightest list, in Blueprint Magazine’s 25 People who will Change the World of Design and in Forbes Magazine’s People you need to know in 2011.

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Erez Shmueli is a senior lecturer at the department of Industrial Engineering at Tel-Aviv University and a research affiliate at the MIT Media Lab. He received his BA degree (with highest honors) in Computer Science from the Open University of Israel, and MSc and PhD degrees in Information Systems Engineering from Ben-Gurion University of the Negev, Israel, under the supervision of Prof. Yuval Elovici. After completing his PhD, Erez spent two years as a post-doctoral associate at the MIT Media Lab, at the Human Dynamics group headed by Prof. Alex ”Sandy” Pentland. His main research interests include Big Data, Complex Networks, Computational Social Science and Information Security and Privacy. His professional experience includes five years as a programmer and a team leader in the Israeli Air-Force and three years as a project manager in Deutsche Telekom Laboratories at Ben-Gurion University of the Negev.

Erbil Sivaslioglu is an engineer, designer and an entrepreneur. After getting his B.Sc. degree from Koç University Industrial Engineering, he continued his studies on graphic design at Shillington College in London. He has been working as an art director for many local and global brands. He founded Bitti Gitti, a creative studio based in Istanbul hosting workshops, making hand crafted cameras and bringing social community platforms to life such as BookSerf and StreetArt Istanbul. He is also co-founder of WePress, a Singapore based citizen journalism app.

Kumar Abhinav Srivastava has a background and interest in Banking Technology and has worked with multiple organizations like RBS Citizens Bank, Bank of America and Yes Bank. He has worked on technology projects and product implementation for Commercial Banking and is specifically inclined towards electronic payments through different channels as mobile and online banking. He has worked
on Business Intelligence projects in the past and his research work at MIT focused on the use of Data Analytics and Machine Learning to derive actionable information for Commercial Banking. He has an educational background in Computer Engineering and Business Administration. At MIT, he pursued Systems Design & Management course that focuses on using systems thinking for product design, development and innovation.

**Alican Turk** earned his BS degree in Computer Science and Engineering at Sabancı University in 2012. Initially a Bioengineering student with Bioinformatics focus, his first research project in Bioinformatics prompted him to change his major in order to become fully immersed in Computer science. His past experiences include research assistantships at Sabancı University between 2009 and 2010, Software development internship at VisioThink, Inc. in 2010 and a research internship at Carnegie Mellon University in 2011. He is currently studying at Politecnico di Torino, Italy for his Master’s degree in Computer science and developing video games using Unity for mobile devices in his spare time. His hobbies include skiing, reading, swimming and running.

**Chai Yi** is currently the Vis Director of College of Automation in Chongqing University. He holds a PhD degree in Control theory and Engineering and Master's degree in Industry Automation from Chongqing University, and his first degree from National Unversity of Defense Technology in Electronic Engineering, China. Professor Chai is a distinguished full professor in Chongqing University. He is a principal postgraduate courses’ lecturer and PhD tutor, honorable academician and reseracher in his field and in the college in general. Because of his deep academic scholastic, he innovated and is running more than 40 national projects. Professor Chai is the famous and known academician, and in his successful achievement and patented work, he received more than 9 national awards. He is also a member and head of many professional and technical associations in the national level. He is therefore, highly respected and honored by his colleagues and students because of his immense and exemplary efforts and wishes to deliver applicable and scalable scientific techniques, methodologies, knowledge and experience to his followers. He published many academic and high standard journals, books, and other technical reports in both English and Chinese. His major research direction is information processing, fusion and control, industrial process control theory and technology, intelligent systems theory and applications, and others in the field of automation.
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Guy Zyskind is a graduate student in the Human Dynamics group at the MIT Media Lab. He holds a B.Sc degree in Electrical Engineering and Computer Science from Tel Aviv University and is currently pursuing a M.S degree under the supervision of Prof. Alex Sandy Pentland. Before joining the Media Lab, Guy has led the development of several start-ups in the Big Data and consumer spaces, including taking the role of Chief Technology Officer at Athena Wisdom, an MIT spin-off company based on Social Physics. His research interests intersect the study of Social Networks and Big Data, Privacy and Distributed Systems, focusing on novel ways to enable privacy-preserving data-analysis in a decentralized setting.