

Eighth International Workshop on Network Theory: *Wisdom in Networks*

March 23-25, 2017

Los Angeles, CA, USA

Annenberg Networks Network



SONIC



advancing the
science of networks in communities

Sponsored by:

Annenberg Networks Network (ANN),
University of Southern California,
Website: usc.edu/ann

Science of Networks in Communities (SONIC)
Northwestern University
Website: sonic.northwestern.edu

Workshop Twitter hashtag: #WisdomNetwork

Schedule

Thursday, March 23

- 5:30 Transportation from hotel to Kerckhoff Hall
- 6-8 Reception, Kerckhoff Hall Lobby
- 8:00 Transportation from Kerckhoff Hall to hotel

Friday, March 24

- 7:45 Transportation from hotel to Annenberg
- 7:45-8:45 Continental Breakfast, Annenberg Building (ASC 204)
- 8:45-8:55 **Welcome**
Dean Ernest J. Wilson III
- 8:55-9:00 **Introduction to Workshop**
Janet Fulk

SESSION 1: Chair, Janet Fulk

- 9:00-10:00 **Dual Pathways to Good Ideas: Toward an Attention-Based View of Innovation in Social Networks**
Paul Leonardi
- 10:00-11:00 **Networks Inside the Mind and Out of this World: Multi-Team Cognition Networks Between Skylab and Mission Control**
Leslie DeChurch
- 11:00-11:15 Break
- 11:15-12:15 **Sharing Expertise versus Sharing Information: Optimal Networks for Team Collaboration and Problem Solving**
PJ Lamberson
- 12:15-1:15 Lunch

SESSION 2: Chair, Manuel Castells

- 1:15-2:15 **The Emergence of Dominance Hierarchies in Open Production Projects: Preliminary Results from a Study of Wikipedia**
Alessandro Lomi
- 2:15-3:15 **Search and Structure: Network Dynamics in Knowledge Communities**
Russell Funk
- 3:15-4:00 Break, Group Photo and walk to

University Club

Keynote Speech: Chair, Noshir Contractor

- 4:00-5:00 **The Nearly Universal Knowledge Hotspot of Scientific Breakthroughs**
Brian Uzzi
- 5:00-5:15 Walk to Annenberg
- Poster Session and Reception: Chair, Peter Monge**
- 5:15-5:30 Introduction to Student/PostDoc Posters
- 5:30-6:30 Reception and Poster Session
- 6:30-6:45 Walk to Dinner
- 6:45-8:15 Faculty Dinner at Scriptorium, University Club
Students/Postdocs Dinner at Study Hall
- 8:15 Transportation to hotel from University Club

Saturday, March 25

- 7:45 Transportation from hotel to Annenberg
- 7:45-8:30 Continental Breakfast, Annenberg Building (ASC 204)
- SESSION 3: Chair: Alessandro Lomi**
- 8:30-9:30 **On Trouble Ticket Routing in a Call Center**
Mudhakar Srivatsa
- 9:30-10:30 **Wisdom or Ignorance: The Thoughtful Use of Networks**
Kathleen Carley
- 10:30-10:45 Break
- CLOSING PANEL: Chair, Janet Fulk**
- 10:45-11:45 Closing Panel Discussion:
Linda Argote, Scott Poole, Ambuj Singh
- 11:45 Concluding Remarks and Boxed Lunch

Speakers

“Wisdom or ignorance:

The thoughtful use of networks”



Kathleen M. Carley is a Professor of Computation, Organizations and Society and the center director for Computational Analysis of Social and Organizational Systems (CASOS - <http://www.casos.cs.cmu.edu/>) in the

Institute for Software Research, School of Computer Science, at Carnegie Mellon University. She received her PhD in Sociology from Harvard, and an SB in Economics and another in Political Science from Massachusetts Institute of Technology. Her research combines cognitive science, network science, agent-based modeling, social media analytics and language technology to address complex social and organizational problems. She founded the journal Computational and Mathematical Organization Theory, co-edited several books and has over 300 publications in network science, social media, and computational social science areas. In 2001 she received a lifetime achievement award in sociology and computers, is the 2010 winner of the Social Network Simmel award, an IEEE Fellow, and winner of the 2014 Allen Newell Award for Research Excellence.

“Networks inside the mind and out of this world: Multi-Team cognition networks between Skylab and Mission Control”

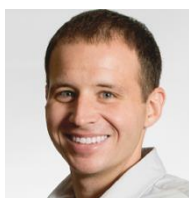


Leslie DeChurch is Professor of Communication Studies, and leads the Northwestern ATLAS lab: Advancing Teams, Leaders, and Systems. Her

current work explores the dynamics through which teams form, and how these dynamics affect their performance as teams, and their ability to work as larger organizational systems (multiteam systems). The ATLAS lab conducts experimental laboratory studies, meta-analytic integrations, and field studies of teams and leaders to understand core organizing

processes. Such processes include: leadership networks, team cognition, team conflict and motivation, and team information sharing. Her current research seeks to build high-functioning teams that work in scientific innovation, space exploration, healthcare, and the military. The ATLAS research portfolio is currently supported by the NSF, NIH, NASA, and ARO. DeChurch has a PhD in Organizational Psychology and is a fellow of the American Psychological Association, American Psychological Society, and the Society of Industrial & Organizational Psychology.

“Search and structure: Network dynamics in knowledge communities”



Russel Funk is an assistant professor in the Strategic Management and Entrepreneurship group at the University of Minnesota's Carlson School of

Management. Before joining the faculty at Minnesota, he earned his PhD in economic sociology and organizations at the University of Michigan. At Minnesota, he is also affiliated with the Social Media and Business Analytics Collaborative. His research focuses on networks, technology strategy, innovation, and entrepreneurship. He is also devising new methods for measuring influence and innovation in social and technological networks.

“Sharing expertise versus sharing information: Optimal networks for team collaboration and problem solving”



PJ Lamberson is an Assistant Professor in the Department of Communication Studies at UCLA. He has degrees in mathematics from The University of Chicago and Columbia University, and has taught on the faculty at MIT Sloan and the Kellogg School of

Speakers

Management. His research focuses on social influence, networks, and collective intelligence.

“Dual pathways to good ideas: Toward an attention-based view of innovation in social networks”



Paul Leonardi (Ph.D., Stanford University) is the Duca Family Professor of Technology Management at the University of California, Santa Barbara. He is

also the Investment Group of Santa Barbara Founding Director of the Master of Technology Management Program. Leonardi's research focuses on how companies can design their organizational networks and implement new technologies to more effectively create and share knowledge. He is particularly interested in how data intensive technologies, such as simulation and social media tools, enable new ways to access, store, and share information; how the new sources of information these technologies provide can change work routines and communication partners; and how shifts in employees' work and communication alter the nature of an organization's expertise.

“The emergence of dominance hierarchies in open production projects: preliminary results from a study of wikipedia”

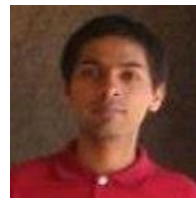


Alessandro Lomi is a Professor in Organization Theory and Behavior in the Faculty of Economics at the University of Italian Switzerland, Lugano where he directs the Social

Network Analysis Research (SONAR) Center, and co-directs the Interdisciplinary Institute of Data Science. He is currently a Visiting Scientist at the ETH Zurich (Chair of Computational Social Science). During the period 2008-2016 he was an elected Conseiller a la Recherche in the Human and Social Sciences Division of the Conseil national de la recherche Suisse (Swiss

NSF), where he also served as vice-Chairperson of the Interdisciplinary Research Commission. His work focuses on relational phenomena both within and between organizations; knowledge sharing, advice relations, and other communication processes that occur in organizational contexts and between organizations; development of social science research methods and tools, including new statistical tools for studying large scale networks. He holds a PhD degree in Business and Public Administration from Cornell University.

“On trouble ticket routing in a call center”



Mudhakar Srivatsa is a principal research staff member and manager of Internet-of-Things (IoT) Analytics team at the Distributed Cognitive Systems department in

IBM T. J. Watson Research Center. His work is focused on cognitive analysis of spatiotemporal data gathered from IoT sensors for distributed activity detection while being robust under adversarial settings. He is an IBM master inventor, authored over 100 research papers, 28 granted US patents, three IBM outstanding technical achievement awards and has transitioned major software artifacts on extracting insights from IoT sensors to various IBM products (InfoSphere Streams, BigInsights, Sensemaking, SPSS Modeler, BlueMix Geospatial services and Spectrum Scale). He served as a technical area leader for Secure Hybrid Networks research in International Technology Alliance in Network and Information Sciences, a research consortium formed from twenty three US and UK industrial and academic members. Prior to joining IBM, he received a PhD in Computer Science from Georgia Tech in 2007.

Speakers

“The nearly universal knowledge hotspot of scientific breakthroughs”



Brian Uzzi is the Richard L. Thomas Professor of Leadership and Organizational Change at the Kellogg School of Management, Northwestern University. He also co-directs NICO, the Northwestern Institute on Complex

Systems, is the faculty director of the Kellogg Architectures of Collaboration Initiative (KACI), and holds professorships in Sociology at the Weinberg College of Arts of Sciences and in Industrial Engineering and Management Sciences at the McCormick School of Engineering. He has lectured and advised companies and governments around the world and has been on or visited the faculties of INSEAD, University of Chicago, and Harvard University. In 2007-2008, he was on the faculty of the University of California at Berkeley where he was the Warren E. and Carol Spieker Professor of Leadership.

Closing Panelists



Linda Argote is the David M. and Barbara A. Kirr Professor of Organizational Behavior and Theory in the Tepper School of Business at Carnegie Mellon

University, where she directs the Center for Organizational Learning, Innovation and Knowledge. Linda's research focuses on organizational learning, organizational memory, knowledge transfer, social networks and group processes and performance. Her book, *Organizational Learning: Creating, Retaining and Transferring Knowledge* was a finalist for the Terry Book Award of the Academy of Management in 2000. The Organization and Management Theory (OMT) division of the Academy of Management chose her as their Distinguished Scholar in 2012. Linda completed her second term as Editor-in-Chief of

Organization Science in 2010.



Marshall Scott Poole is the David L. Swanson Professor of Communication, Senior Research Scientist at the National Center for Supercomputing Applications, and Director of I-CHASS: The Institute for Computing in the Humanities, Arts, and Social Sciences at the University of Illinois. He is also a CCSS Fellow in the Organization Science Program at Vrije University in Amsterdam, Netherlands. His research interests include group and organizational communication, information and communication technologies, collaboration, organizational change and innovation, and theory construction.



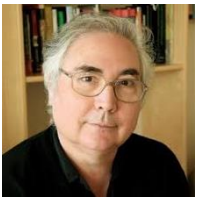
Ambuj Singh is a Professor of Computer Science at the University of California, Santa Barbara, with part-time appointments in the Biomolecular Science and Engineering Program and the

Technology Management Program. He is interested in the commercialization of technology and is leading a startup, Acelot. He received a B.Tech. degree from the Indian Institute of Technology, Kharagpur, and a PhD degree from the University of Texas at Austin. His research interests are broadly in the areas of databases, data mining, and bioinformatics. He has published approximately 200 technical papers over his career. He has led a number of multidisciplinary projects in the past including UCSB's Information Network Academic Research Center funded by the US Army. He is currently directing UCSB's Interdisciplinary Graduate Education Research and Training (IGERT) program on Network Science funded by the National Science Foundation (NSF). Besides the NSF and Army, his research has also been funded by the National Institute of Health.

Participants



Leila Bighash's research focuses on knowledge sharing, knowledge creation, organizing, and the development of information goods in different contexts, particularly in online communities and social media. Theoretically, she is interested in evolutionary theory, signaling theory, network theory, and public goods and collective action theories. Methodologically, she has been trained in advanced quantitative methods. She is a member of the research group Annenberg Networks Network, and she has presented her research at many conferences. She received a BA in Political Science from UCF, an MA in Political Science from Rice University, and an MA in Journalism from CU-Boulder.



Manuel Castells is University Professor and the Wallis Annenberg Chair in Communication Technology and Society at the University of Southern California. He is Professor of Communication at the Annenberg School for Communication and Journalism, and holds joint appointments in the Department of Sociology, in the School of Policy, Planning, and Development, and in the School of International Relations. He is, as well, Professor Emeritus, University of California, Berkeley, where he was Professor of City and Regional Planning and Professor of Sociology from 1979 to 2003 before joining USC. He currently holds a visiting chair at the Institute of Global Studies, Maison des Sciences de l'Homme in Paris. He is also Director of Research at the Department of Sociology, University of Cambridge, and Fellow of St. John's College, Cambridge. He is also Co-Director of the Annenberg Networks Network.

Noshir Contractor is the Jane S. & William J. White Professor of Behavioral Sciences in the McCormick School of Engineering & Applied Science, the School



of Communication and the Kellogg School of Management at Northwestern University, USA. He is the Director of the Science of Networks in Communities (SONIC) Research Group at Northwestern University. He is investigating factors that lead to the formation, maintenance, and dissolution of dynamically linked social and knowledge networks in a wide variety of contexts including communities of practice in business, translational science and engineering communities, public health networks and virtual worlds. His research program has been funded continuously for over 15 years by major grants from the U.S. National Science Foundation with additional current funding from the U.S. National Institutes of Health (NIH), NASA, Air Force Research Lab, Army Research Institute, Army Research Laboratory, the Gates Foundation and the MacArthur Foundation.



Ignacio Cruz received his B.S. with honors in Corporate Communication Studies from the Moody College of Communication at the University of Texas at Austin. As a Ronald E. McNair Scholar, Ignacio has conducted research abroad in China, Ghana, and South Africa. His research examines interdependent relationships of organizational dynamics—e.g., networks, overload, and social capital—with emerging technologies. Specifically, his work examines how new technologies can influence members of an organization to communicate differently. Ignacio is a recipient of the National Science Foundation (NSF) Graduate Research Fellowship. You can find him on Twitter @ [ignaciocruz](#) or online at [ignaciocruz.com](#).

Participants



Janet Fulk is Professor of Communications in the Annenberg School for Communication and Journalism, and Professor of Management and Organization the Marshall School of Business at University of Southern California. She is also Co-Director of the Annenberg Networks Network. Her research centers on social aspects of knowledge and distributed intelligence, enterprise social networking, nongovernmental organization networks, and dynamics of online communities. Current projects examine social dynamics in crowdsourcing, factors leading to post-funding success of crowdfunded projects, motivations and social capital in enterprise social networking in private industry, and the evolution of the social networking site as an organizational form. She is a Fellow of The Academy of Management and of the International Communication Association, and she holds career achievement awards from The Academy of Management and the International Communication Association.

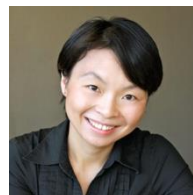


Kristen Guth researches the intersection between technology and organizational change from a social scientific perspective. Kristen is most interested in understanding the mutual effects between technology (including the Internet) and organizations, including the latter's communication, structures, cultures and performance. More importantly, she interested in how this type of understanding can help shape the technology design process, strategic management, and strategic communication. Her dissertation work is focused on teamwork, leadership, and design in a San Francisco Bay area crowdfunding startup. Kristen received a B.A. from Wake Forest University and an M.A. from the University of Illinois at Urbana-Champaign, both in communication, and has

researched with the Youth and Media Project at the Berkman Center for Internet and Society at Harvard University and studied at the Oxford Internet Institute.



Andrea B. Hollingshead is Professor of Communication in the USC Annenberg School for Communication and Journalism, and has joint appointments with the Marshall School of Business and the Department of Psychology. She is currently serving as Annenberg's Associate Dean for Faculty Affairs and Research. Professor Hollingshead is an expert on collective intelligence and group decision making. Her research identifies the factors, processes, and practices that make some groups more effective than others. She has studied a broad array of groups: from very small to very large; from face to face to those supported by technology across a wide range of contexts. Much of this work has been supported by the National Science Foundation.



Lian Jian is an assistant professor in the School of Communication. She obtained her Ph.D. from the University of Michigan, where she studied the economics of information. She has a Master's degree in Science and Technology Policy from Virginia Polytechnic Institute and State University, a Master's degree in electrical engineering from Nanyang Technological University, and a Bachelor's degree of engineering in automation from Beijing University of Posts and Telecommunications. Professor Jian's research focuses on the economics of online information systems, using multiple research methods. Examples of her past research include a game-theoretic model of generalized reciprocity in peer-to-peer file-sharing systems, lab experiments on manipulation by bidders in prediction markets, an

Participants

econometric study of choice of feedback provision strategy by users on eBay, and a data-driven study of why people stop contributing to Wikipedia.



David Kempe received his Ph.D. from Cornell University in 2003, and has been on the faculty in the computer science department at USC since the Fall of 2004, where

he is currently an Associate Professor. His primary research interests are in computer science theory and the design and analysis of algorithms, with a particular emphasis on social networks, algorithms for feature selection, and game-theoretic and pricing questions. He is a recipient of the NSF CAREER award, the VSoE Junior Research Award, the ONR Young Investigator Award, a Sloan Fellowship, and an Okawa Fellowship, in addition to several USC mentoring awards.



Jen Labrecque is a Postdoctoral Research Associate at the University of Southern California in the Department of Preventive Medicine. In collaboration with Dr. Kayla de la Haye, she is part of a

MURI team investigating how individual differences (e.g., social intelligence) influence the network structure and performance of teams.

Lindsay Larson is a Northwestern University PhD student working under the advisement of Leslie DeChurch. Research focus in organizational teams, multiteam systems, and leadership networks.



Kyle Lewis' research focuses broadly on knowledge and learning in organizations by investigating: a) the social context influencing the extent and quality of learning in

groups (collective cognition, transactive memory) and b) the environmental factors (task change, technological innovation) that have the potential to disrupt learning processes in organizations. Lewis is a full professor in UCSB's Technology Management program. She has degrees in Mathematics and Computer Science from Duke University, a Masters' in Industrial Administration from Carnegie-Mellon University, and Ph.D. in Organization Science from U. of Maryland. Before coming to UCSB in 2014, Lewis spent 16 years on the faculty at the McCombs School of Business, University of Texas Austin.



Yiqi (Iona) Li received her B.A. in Journalism from Shanghai International Studies University, and her M.S. degree in

communication from Northwestern University (NU). During her undergraduate years, she accumulated some internship experience as a journalist, which allows her to study communication from a media and social point of view. Her intern experience in the Xinhua News Agency also inspired her interests in managerial communication. Her later study in NU enhanced both her professional and academic background, and from her RA experience in Network for Nonprofit and Social Impact lab in NU, she developed a keen interest in studying inter-organizational network, organizational ICT use, and the impact of social media on stakeholders.



Michael Macy is Goldwin Smith Professor of Sociology and director of the Social Dynamics Laboratory at Cornell University. His recent

research uses data from Twitter to track diurnal and seasonal mood changes; telephone call logs to measure network structure at the population level; and Amazon book reviews to determine whether reviewers are influenced by previous reviews. He has also used

Participants

computational models to study the spread of high-threshold social contagions on small-world and scale-free networks. Macy's research has been published in such leading journals as *Science*, *Proceedings of the National Academy of Sciences*, the *American Journal of Sociology*, the *American Sociological Review*, and the *Annual Review of Sociology*. He earned his PhD from Harvard University.



Peter Monge is Professor of Communication at the Annenberg School for Communication and Journalism and Professor of Management and Organization at

the Marshall School of Business, University of Southern California. He is also Co-Director of the Annenberg Networks Network, a research center focused on communication network theory and research. He has published five books, the most recent of which is *Theories of Communication Networks* (with Noshir Contractor). He has published theoretical and research articles on organizational communication networks, evolutionary and ecological theory, collaborative information systems, globalization, and research methods. He is an elected Fellow and a former president of the International Communication Association (ICA, 1997-1998). He has received the ICA Steven H. Chaffee Career Productivity Award and the B. Aubrey Fisher Mentorship Award, where eight of his doctoral advisees have won dissertation awards. He is a Distinguished Scholar of the National Communication Association. From 1986 to 1993 he served as editor of *Communication Research*.

Jackie Ng is a 4th year PhD student in Industrial Engineering & Management Sciences, and a member of SONIC research group. She is interested in virtual



teams, social networks, group norms, and how technology can improve team outcomes.



Poong Oh is a post-doctoral fellow at the Annenberg School for Communication at the University of Pennsylvania. His dissertation, entitled "The Evolution of Scientific

Collaboration Networks," examined the replication, mutation, and selection mechanisms of the dynamic changes of collaboration networks from the Darwinian evolutionary perspective. His research focuses on cooperation and the role communication plays in building, fostering, and sustaining it in the contexts of groups, organizations, and communities. He is also interested in mathematical and statistical methods, including big data analysis, Bayesian statistics, network analysis, and agent-based modeling.



Edward T. Palazzolo is the Program Manager for the Army Research Office's research program on Social and Cognitive Networks. He has served on the faculty at The Ohio

State University's School of Communication and Arizona State University's Hugh Downs School of Human Communication and was the Associate Director of the SONIC Research Lab in Industrial Engineering and Management Science at Northwestern University. His current research focuses on the network science of teams, team cognition, and cognitive neural networks. His research is published in journals such as *Communication Research*, *Communication Theory*, *Journal of Communication Management*, and *Communication Methods and Measures*.



Trevor Pickering is a Ph.D. student in Health Behavior Research at the Keck School of Medicine of USC. His primary research interest is

Participants

using social network information to improve community-based health behavior interventions. He is also involved with the statistical analysis of biological and health data, having received his Master of Science in Biostatistics at USC and Bachelor's in mathematical biology from Harvey Mudd College. He balances his academic life by seeking out great food and teaching as a group exercise instructor



Ruqin Ren studies online knowledge collaboration communities, and crowdsourcing groups, using social network analysis, semantic analysis and other computational techniques.

Her works appeared in CHI 2017, OpenSym 2015, ICA, NCA, Sunbelt Conference, HBES Conference. Prior to entering USC, Ruqin worked as a social media data analyst at Eli Lilly, using the studies of online policy advocacy communities to effectively organize and enable digital conversation. She holds an M.A. from Georgetown University's Communication, Culture, and Technology program, and B.A. in English, B.S. in Business Management from University of International Business in Beijing.



Christoph Riedl is the Joseph G. Riesman Research assistant professor for Information Systems at the D'Amore-McKim School of Business at Northeastern University. He holds a joint appointment with

the College of Computer & Information Science and is a core faculty at the Network Science Institute. He is a fellow at the Institute for Quantitative Social Science (IQSS) at Harvard University. He is recipient of a Young Investigator Award (YIP) from Army Research Office (ARO) for his work on social networks in collaborative decision-making. Before joining Northeastern University he was a post-doctoral fellow at Harvard Business School and IQSS. His research interests are in business analytics, data science, and computational social science which he applies to substantive research

questions on group-decision making, network science, and social media. He applies and develops novel computational approaches and machine learning to analyze (experimental) field data in order to study the design of contests, crowd sourcing, and collective intelligence mechanisms.



Christiana Robbins is a third year doctoral fellow at USC Annenberg. She studies network structure's impact on information transmission, particularly in digital spaces. She is

interested in studying ways to empower socio-economically disadvantaged groups by using technology as a tool to tap into knowledge that would otherwise be inaccessible to them. She has a double major in Communication and English Literature from Pacific Union College.



Matthew D. Sargent received his joint Ph.D. in History and Organizational Behavior at the University of California, Berkeley in May, 2013. His dissertation,

"The birth of globalization: cross-cultural knowledge transfers along European-Asian trade routes and the rise of the multinational corporation (1250-1750)," examined the ways in which evolving patterns of commercial organization transformed global trade and knowledge flows during the medieval and early modern period. While at USC, Sargent taught courses on business and labor in American history. His current position is associate Management Scientist, RAND Corporation.



Michael Schultz is a post-doctoral fellow in the SONIC Research Group at Northwestern University. He received his Ph.D. in sociology from the University of California,

Berkeley. His research interests include computational

Participants

sociology, social networks, and cultural structures. His current work looks at how patterns of shared cognition in work groups affect group performance. This project employs text analytics and social network analysis on the transcripts of group interactions. These models have been used to help understand the dynamics of astronauts on NASA missions and the decisions of the Federal Open Market Committee.



Jieun Shin is currently a post-doctoral researcher in the department of preventive medicine at University of Southern California.

Her research interests involve diffusion of information in topics ranging from politics to health advice, with a particular focus on misinformation. She received her doctorate at University of Southern California in communication and journalism. Jieun's recent work has appeared in *Journal of Communication*, *New Media and Society*, and *Mass Communication and Society*. She has also co-authored a book entitled "The Future of Media". Prior to this academic work, Jieun worked as a journalist at the *Chosun Daily*, South Korea's largest newspaper.

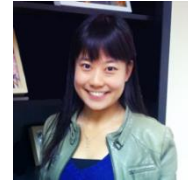


Emily Sidnam-Mauch received her B.A. in Communication Studies summa cum laude from Biola University, where she was named Outstanding

Communication Student of the year. Prior to her graduate studies, Emily worked as a Social Media Manager for a marketing and innovation company, growing clients' social media followings through strategic, brand-centered marketing campaigns. Emily then went on to earn her M.A. in Media, Technology and Society from Purdue University, with a double minor in Social Networks & Social Capital and Research Methods. At Purdue, Emily worked on a research project on Twitter and safety behavior for

the Department of Homeland Security's VACCINE group.

Yao Sun (Sophie) received her B.A. in Economics and Management and B.A. in Journalism with highest honors



from Communication University of China (P.R. China). Prior to doctoral study at Annenberg, she graduated with an M.Phil from the School of Communication, Hong Kong Baptist University. Yao's research mainly focuses on online collective behaviors, health informatics, and network dynamics.



Kyosuke Tanaka is a second year PhD student in the Media, Technology, and Society program, working in Noshir Contractor's SONIC lab. His research interests

lie at the intersection of network science, web science and computational social science. His recent projects explore how people form and develop their cognitive map of networks that surround them and how people use the networks, using observational data, simulation and experiments. Kyosuke holds a Master of Social Research from Australian National University, a BA in Business and Commerce from Keio University, and certification from the International Business Profession program at Bellevue College.



Thomas W. Valente, PhD, is a Professor in the Department of Preventive Medicine, Institute for Prevention Research, Keck School of Medicine, University of Southern

California. He is author of *Social Networks and Health: Models, Methods, and Applications* (2010, Oxford University Press); *Evaluating Health Promotion Programs* (2002, Oxford University Press); *Network Models of the Diffusion of Innovations* (1995, Hampton

Participants

Press); and over 140 articles and chapters on social networks, behavior change, and program evaluation. Valente uses social network analysis, health communication, and mathematical models to implement and evaluate health promotion programs designed to prevent tobacco and substance abuse, unintended fertility, and STD/HIV infections. He is also engaged in mapping community coalitions and collaborations to improve health care delivery and reduce healthcare disparities. Valente received his BS in Mathematics from the University of Mary Washington, his MS in Mass Communication from San Diego State University, and his PhD from the Annenberg School for Communication at USC.



George G. Vega Yon is a Chilean currently spending his days as Research Programmer at USC working on SNA + Statistical Computing with Prof. Thomas W.

Valente. He holds a MA in Economics and Public Policy from Universidad Adolfo Ibáñez (Chile) and a MS in Social Sciences (aka Economics) from the California Institute of Technology (USA). Currently he is interested in policy analysis through (complex) systems modeling, developing (and implementing) new statistical methods for data analysis (and inference), statistical computing, and computational social sciences in general.



Yuehan Grace Wang is a researcher, online blogger and traveler. Her current research focuses on entertainment startup companies in China and the U.S.

She is interested in addressing and exploring leadership, team-building and strategic development in startup companies with the embeddedness of the use of technology. She is a mixed methodology researcher who is the 2016 Andrew Fellowship recipient in Survey Research Techniques at University of Michigan. She received her BA in

journalism at Shandong University (China) and her MS in public relations at Boston University. Prior to her study at USC, she practiced journalism and public relations in industry.



Larry Zhiming Xu received his B.A. in Journalism and M.A. in Communication from Tianjin Normal University, China. He attended Washington State

University and earned his second M.A. in Communication in 2014. He studies new media and technology using a wide range of methods, including network analysis and text mining. He has teaching experience in various communication theory and method classes and research experience in the Annenberg Networks Network at USC and Communication Technology Research Lab at WSU. Before coming to the US, he worked in Xinhua News Agency as a journalist and New Oriental Education and Technology Group as an English instructor.



Yu Xu is a third-year Ph.D. student at the Annenberg School for Communication and Journalism, University of Southern California. He received his B.A. in communication

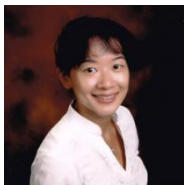
from Fudan University in 2012. He graduated from Tsinghua University with a M.A. in journalism and communication in 2014. His current research interests include network theory and analysis, evolutionary and ecological processes in organizational communities, collective action and social movements, and computational methods. Yu's work has been published in Telematics and Informatics, International Journal of Communication, Journal of Communication, Digital Journalism, African Journalism Studies, and Proceedings of the 50th Hawaii International Conference on System Sciences.

Participants



Bei Yan is interested in computer-mediated knowledge collaboration in online settings, with a particular focus on the communication and social

influence processes within online knowledge collaboration. She conducts online experiments, applies social network analysis and analyzes behavioral data sets of online knowledge communities, such as Stack Overflow and Wikipedia. Bei received her double master's degrees in Global Media and Communications from the London School of Economics and the University of Southern California. She graduated from Renmin University of China with a bachelor's degree in marketing.



Aimei Yang is an Assistant Professor at USC Annenberg. Yang earned her Ph.D. in Communication at the University of Oklahoma.

Yang's research is positioned at the intersection of strategic public relations research and a social network approach to the study of inter-organizational relationships, and focuses on the relationship dynamics among civil actors, corporations and government agencies. Specifically, Yang's research topics include transnational civil networks, multi-sectoral alliance networks, public diplomacy, and dynamic social networks in social movements. Yang has published over 30 refereed journal articles and book chapters in communication, public relations, and business journals such as *Communication Theory*, *Journalism and Mass Communication Quarterly*, *Mass Communication and Society*, *Computers in Human Behavior*, *Public Relations Review*, and *Journal of Business Ethics*, among others. Yang has also regularly presented her work at national and international conferences and given research talks at universities around the world. Yang has received six top faculty research awards from National

Communication Association since 2012.



Lindsay Young is a Postdoctoral Scholar at the University of Chicago's Chicago Center for HIV Elimination. Her work examines the network dynamics of HIV risk

and protection among young Black men who have sex with men. Specifically, Lindsay's research underscores three crucial roles that networks play in these context: (1) networks as naturalized environments where exposure to risk and protection occur; (2) networks as diffusion mechanisms through which innovative ideas and practices spread, (3) networks as systems of social and emotional support to be leveraged during change processes.



Y. Connie Yuan teaches and conducts research in the area of organizational communication at Department of Communication, Cornell University. Specially, she is

interested in studying knowledge management through the development of social capital, and the adoption and usage of information and communication technology. Her ultimate goal is to integrate findings from organizational behavior and information systems, and to develop and test new social science theories that advance our understanding of knowledge management.

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