

# Kathleen Mary Carley

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## EDUCATION

9/1978-6/1984 Ph.D. Harvard University. Sociology Thesis: Consensus Construction  
9/1974-6/1978 S.B. Massachusetts Institute of Technology. Political Science  
9/1974-6/1978 S.B. Massachusetts Institute of Technology. Economics

## PROFESSIONAL EXPERIENCE

### REGULAR APPOINTMENTS

8/2002- Professor of Computation, Organization and Society; Appointment in Institute for Software Research International, SCS; Courtesy appointments in SDS, Heinz, GSIA and EPP; Carnegie Mellon University. Pittsburgh, PA 15213  
9/1998- 7/2002 Professor of Sociology, Organizations and IT; Appointments in SDS, Heinz, GSIA and EPP; Carnegie Mellon University. Pittsburgh, PA 15213  
9/1990-8/1998 Associate Professor of Sociology and Organizations; Carnegie Mellon University. Pittsburgh, PA 15213  
9/1984-8/1990 Assistant Professor of Sociology and Information Systems; Carnegie Mellon University. Pittsburgh, PA 15213

### OTHER APPOINTMENTS AND POSITIONS

9/1998- Center Director, Center for Computational Analysis of Social and Organizational Systems.  
<http://www.casos.cs.cmu.edu/>  
2010-2011 Scientific Advisory Board, Aptima  
8/1999-8/2000 Institute for Complex Engineered Systems (ICES) – CASOS Lab Director  
3/1999-8/1999 Institute for Complex Engineered Systems (ICES) – CASOS Thrust Leader  
1/1997 Invited Professor, Universite' Leonardo DaVinci  
6/1992-9/1992 Research Faculty, Learning Research and Development Center (LRDC), U. of Pittsburgh. Pittsburgh, PA.  
6/1991-9/1991 Research Faculty, LRDC, U. of Pittsburgh. Pittsburgh, PA.  
6/1990-9/1990 Research Faculty, LRDC, U. of Pittsburgh. Pittsburgh, PA.  
6/1984-8/1984 RA for Prof. Bob Eccles, Harvard Business School. Cambridge, MA.  
12/1982-8/1984 Computer and Statistical Consultant, Harvard University. Cambridge, MA.  
1/1982-6/1982 Project Director Cambridge-Somerville Sociology Internship Program, Harvard University. Sociology. Cambridge, MA.  
9/1979-1/1982 TA for Sociology 156: (Intro. Statistics), Harvard University. Cambridge, MA.  
6/1980-10/1984 Software Development and System Management for Prof. James Davis, Harvard University. Sociology. Cambridge, MA.  
2/1979-5/1981 Instructor in Applied Mathematics, Lowell Institute. Cambridge, MA.  
6/1978-8/1978 Research Assistant Prof. Hayward Alker, MIT: Political Science. Cambridge, MA.  
2/1977-5/1978 Research Assistant Bloomfield and Alker, MIT: Political Science. Cambridge, MA.  
6/1975-10/1976 Research Assistant Prof. Bloomfield, MIT: Political Science. Cambridge, MA.

## CONSULTING

2016- Drexel University  
2014 Blue Shield  
2011 Centra

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<sup>1</sup> Toward the end of 2007 the Institute for Software Research International, a department in the School of Computer Science at Carnegie Mellon University changed its name to Institute for Software Research.

K.M. Carley September 14, 2017

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|---------------------|--|
| 2009-2017           | Columbia University  |
| 2005-2006           | Global Info Tek, Inc.  |
| 2005-2006           | New York School of Medicine  |
| 2005                | DyNaTech   |
| 2004-2007           | HumRo  |
| 2003-2004           | ALPHATECH (now BAE)  |
| 2003                | Sandia   |
| 2002-2003           | Booze Allen Hamilton   |
| 2002-2004           | Nursing School, ASU  |
| 1998-2005,2009-10   | Aptima   |
| 3/2000              | Merrill Lynch  |
| 10/1998-12/1998     | Kaufmann Foundation  |
| 3-7/1997,2003-06    | Charles River Analytics  |
| 6/1995,5/1998       | Mellon Bank  |
| 5-7/1994,10-12/1994 | American Red Cross — Initial Response Crisis Management Training Seminar |
| 5/1989-2/1990       | Center for Strategic Decision Research — Org. Structure for R&D Funding  |
| 4/1987-10/1987      | Thomson, Rhodes and Cowie, Pittsburgh, PA. — IS                          |
| 6/1982-8/1984       | School for English as a Foreign Language, Harvard University — IS        |
| 6/1983              | Metametrics Corporation, Carlisle, MA. — Statistical Consultant          |
| 12/1981-8/1984      | Harvard University — Programmer/Consultant                               |

## INTERESTS

Kathleen M. Carley's research combines cognitive science, social networks and computer science to address complex social and organizational problems. Her specific research areas are social network analysis, dynamic network analysis, agent-based modeling, computational social and organization theory, adaptation and evolution, social network text mining, cyber security and the impact of telecommunication technologies and policy on communication, information diffusion, disease contagion and response within and among groups particularly in disaster or crisis situations. She and members of her center have developed novel tools and technologies for analyzing large-scale geo-centric dynamic-networks and various multi-agent simulation systems. These tools include: ORA, a statistical and graphical toolkit for analyzing and visualizing multi-dimensional networks and time-varying networks; AutoMap, a text-mining system for extracting semantic networks from texts and then cross-classifying them using an organizational ontology into the underlying social, knowledge, resource and task networks; CEMAP, a system for extracting networks from email and blogs; and SORASCS, a service oriented plus architecture for designing and sharing workflows in the human socio-cultural space. Her simulation models meld multi-agent technology with network dynamics and empirical data. Three of the large-scale multi-agent network models she and the CASOS group have developed are: BioWar, a city-scale dynamic-network agent-based model for understanding the spread of disease and illness due to natural epidemics, chemical spills and weaponized biological attacks; Construct, an agent-based dynamic-network based model for assessing network evolution and the diffusion of information and beliefs under diverse socio-demographic and media environments; and RTE, a model for examining state failure and the escalation of conflict at the city, state, nation and international as changes occur within and among red, blue and green forces. Dr. Carley is the director of the center for Computational Analysis of Social and Organizational Systems (CASOS) which has over 25 members, both students and research staff. She is the founding co-editor of the journal Computational Organization Theory and has co-edited several books in the computational organizations and dynamic network area.

## HONORS AND PROFESSIONAL RECOGNITION

|           |   |
|-----------|---|
| 2017-2018 | Conference Chair, SBP-BRiMS 2018  |
| 2017-2018 | Member of the NAS/NRC Committee on Decadel Survey   |
| 2016-2017 | Conference Chair, SBP-BRiMS 2017  |
| 2015-2016 | Conference Chair, SBP-BRiMS 2016  |
| 2015-2016 | Member of the NAS/NRC Committee on Models of the World for the National Geospatial-Intelligence Agency  |
| 2014      | Allen Newell Award for Research Excellence - "For the creation of empirical methods to rigorously establish the impact of human communication on software quality." |
| 2014-2017 | Member of the NAS ARL Review Panel  |

K.M. Carley September 14, 2017

2013 IEEE Fellow  
2012-2013 Member of the NAS/NRC Committee on Digital Math Library  
2012-2014 DHS Homeland Security Science and Technology Advisory Committee, HSSTAC, SGE  
2012 Kenneth Joseph, Chun How Tan and Kathleen M. Carley, 2012, "Beyond 'Local', 'Categories' and 'Friends': Clustering foursquare Users Using Latent 'Topics'" 4th International Workshop on Location-Based Social Networks (LBSN 2012) at UBIKOM Sept 8, 2012 - Pittsburgh, PA. Best Paper Award  
2011 Senior Member IEEE  
2011 Kathleen M. Carley, Simmel Award, International Network for Social Network Analysis, February 2011, St. Petersburg, FL.  
2011 Geoffrey P. Morgan and Kathleen M. Carley, "Exploring the impact of a stochastic hiring function in dynamic organizations," In proceedings of the Behavioral Representation in Modeling and Simulation (BRIMS) Conference, Sundance, UT, March 23, 2011, Pp. 106-113. Best Student Paper award.  
2010-2013 Member of the NAS/NRC Committee on NGA Workforce Assessment  
2010 Patrick Wagstrom, James D. Herbsleb and Kathleen M. Carley, "Communication, Team Performance and the Individual: Bridging Technical Dependencies," Academy of Management Conference, Montreal, Canada, August 2010. Best Paper Award.  
2009-2013 Member of the NAS/NRC Committee on Large Scale Data Analysis  
2009 Terrill L. Frantz and Kathleen M. Carley, "Toward A Confidence Estimate for The Most-Central-Actor Finding," In proceedings of the Academy of Management Annual Conference, Chicago, IL, August 7-11, 2011. Sage Publications/RM division Best Student Paper.  
2008 Marcelo Cataldo, Jim D. Herbsleb and Kathleen M. Carley, "Socio-Technical Congruence: A Framework for Assessing the Impact of Technical and Work Dependencies on Software Development Productivity," In Proceedings of the Second ACM-IEEE International Symposium on Empirical Software Engineering and Measurement, New York, NY: ACM, Pp. 2-11. ACM Distinguished Paper Award.  
2008 George B. Davis, Jamie Olson and Kathleen M. Carley, "Unsupervised Plan Detection with Factor Graphs," In proceedings of Sensor-KDD, Las Vegas, NV, August 24-27, 2008. Best Paper Award.  
2007-2008 Task Force Member for Defense Science Board: Human Behavioral Modeling  
2007-2008 Member of the GIST Panel on Adversary Modeling  
2006-2008 Member of the NAS/NRC Committee on Behavioral Modeling and Simulation: From Individuals to Societies  
2007 Jana Diesner and Kathleen M. Carley, "Conditional Random Fields for Entity Extraction and Ontological Text Coding," In proceedings of the North American Association for Computational Social and Organizational Science (NAACSOS) Conference, Atlanta, GA, July 2007. Best student paper award.  
2006 Member of the NAS/NRC Committee on Modeling Community Containment for Pandemic Influenza: A Letter Report  
2006 Marcelo Cataldo, Patrick Wagstrom, James Herbsleb and Kathleen M. Carley, "Identification of Coordination Requirements: Implications for the design of collaboration and awareness tools," Computer Supported Cooperative Work, Banff, Alberta, Canada, Pp. 353- 362. Best Paper CSCW 2006, Awarded by ACM SIGCHI.  
2005-2006 Member of the NAS/NRC Committee on Modeling and Simulation for Defense Transformation  
2005-2006 Member of the NAS/NRC Committee on Defense Modeling and Simulation  
2002-2004 President of the North American Association of Computational Social and Organizational Systems  
2001 Lifetime Achievement Award from the Sociology and Computers Section of the ASA  
1999-2000 President for ASA Mathematical Sociology Section  
1998-1999 President Elect for ASA Mathematical Sociology Section  
1996-1998 Member NSF Advisory Panel for Sociology  
1996-1998 Member of the NAS/NRC Committee on Human Behavior and Military Simulation  
1996-1997 Member NSF ITO Steering Committee  
1994-1995 President for ASA Micro-computing Section (renamed Computers and Sociology)  
1993-1994 President Elect for ASA Micro-computing Section (renamed Computers and Sociology)  
1993-1994 Elected as Newsletter Editor for TIMS College on Organizations.  
1993-1994 Elected to the Council of the SSCA.

K.M. Carley September 14, 2017

- 1992-1993 Elected to the Council of the ASA Micro-computing Section  
1990 Invited by the American Sociological Association to present a didactic seminar at the annual meetings. "Computer Analysis of Qualitative Data". ASA meetings: Washington DC.  
1989 Invited by the American Sociological Association to present a didactic seminar at the annual meetings. "Computer Analysis of Qualitative Data". ASA meetings: San Francisco, CA.  
1989 Certificate from the Social Sciences Applications Special Interest Group of the Operations Research Society of America for "Innovative Management Theory and Its Applications".  
1982-1983 Alternate for Graduate School of Arts and Sciences merit fellowship - Harvard University.  
1982 CUE Guide Citation for teaching Sociology 156.  
1981-1982 Nominated by Harvard University Sociology Department for Graduate School Arts and Sciences merit fellowship. Class Rank 1.  
1980 CUE Guide Citation for teaching Sociology 156.  
1978 American Assoc. of University Women National Fellowship graduate study at MIT, Polit. Science

## BOOKS

- Il-Chul Moon, Kathleen M. Carley, T.G. Kim. 2013, *Modeling and Simulating Command and Control for Organizations Under Extreme Situations*. Springer.
- Ronald Breiger, Kathleen M. Carley and Philippa Pattison (Eds.), 2003, *Dynamic Social Network Modeling and Analysis: Workshop Summary and Papers*. Committee on Human Factors, Board on Behavioral, Cognitive and Sensory Sciences. Washington, DC: National Academy Press.
- Zhiang Lin and Kathleen M. Carley, 2003, *Designing Stress Resistant Organizations: Computational Theorizing and Crisis Applications*, Boston, MA: Kluwer.
- Michael J. Prietula, Kathleen M. Carley and Les Gasser (Eds.), 1998, *Simulating Organizations: Computational Models of Institutions and Groups*, Menlo Park, CA: AAAI Press / The MIT Press.
- Robert W. Lawler and Kathleen M. Carley, 1996, *Advanced Qualitative Methods in the Study of Human Behavior: Case Study and Computing*, Norwood, NJ: Ablex.
- Kathleen M. Carley and Michael J. Prietula (Eds.), 1994, *Computational Organization Theory*, Hillsdale, NJ: Lawrence Erlbaum Associates.
- David S. Kaufer and Kathleen M. Carley, 1993, *Communication at a Distance: The Effect of Print on Socio-Cultural Organization and Change*, Hillsdale, NJ: Lawrence Erlbaum Associates.

## MONOGRAPHS

- Kathleen M. Carley (panel member), 2016, *From Maps to Models: Augmenting the Nation's Geospatial Intelligence Capabilities*, National Research Council. The National Academies Press. Washington D.C.
- Kathleen M. Carley (panel member), 2014, *Developing a 21st Century Global Library for Mathematics Research*, National Research Council. The National Academies Press. Washington D.C.
- Kathleen M. Carley (panel member), 2013, *Frontiers in Massive Data Analysis*, National Research Council. The National Academies Press. Washington D.C.
- Kathleen M. Carley (panel member), 2013, *Future U.S. Workforce for Geospatial Intelligence*, National Research Council. The National Academies Press. Washington D.C.
- Kathleen M. Carley (panel member), 2008, *Behavioral Modeling and Simulation, From Individuals to Societies*, National Research Council. The National Academies Press, Washington, DC.
- Kathleen M. Carley (panel member), 2006, *Modeling Community Containment for Pandemic Influenza: A Letter Report*, National Research Council. The National Academy Press. Washington, D.C.
- Kathleen M. Carley (panel member), 2006, *Defense Modeling, Simulation and Analysis: Meeting the Challenge*, National Research Council. The National Academy Press. Washington, D.C.
- Kathleen M. Carley (panel member), 1998, *Modeling Human and Organizational Behavior: Application to Military Simulations*, Final Report, Richard W. Pew and Anne S. Mavavor, editors. National Research Council, National Academy Press. Washington D.C., Available from:  
<http://www.nap.edu/readingroom/enter2.cgi?0309060966.html>
- Kathleen M. Carley (panel member), 1997, *Representing Human Behavior in Military Simulations*, Interim Report, Richard W. Pew and Anne S. Mavavor, editors. National Research Council, National Academy Press. Washington D.C.

## ARTICLES: ORGANIZATIONAL THEORY

### REFEREED PUBLICATIONS

- Elizabeth McGhee Hassrick, Paul Shattuck and Kathleen M. Carley, 2017-forthcoming, Collaborative Support for Young Adults with ASD: Network Measures to Inform School to Work Transitions, *Pediatrics*
- Jacqueline A. Merrill, Barbara Sheehan, Kathleen M. Carley, P.D. Stetson, 2015, "Transition Networks in a Cohort of Patients with Congestive Heart Failure. A novel application of informatics methods to inform care coordination." *Applied Clinical Informatics*, 6(3): 548-64. DOI: [10.4338/ACI-2015-02-RA-0021](https://doi.org/10.4338/ACI-2015-02-RA-0021)
- Kathleen M. Carley, 2015-forthcoming, "Crisis Mapping: Big Data from a Dynamic Network Analytic Perspective," *Journal of Organization Design*.
- Geoffrey M. Morgan, Kenneth Joseph, and Kathleen M. Carley, 2015, Group-Based Transactive Memory to implement Computationally-Plausible Social Cognition in Agents. BRiMS'15, Washington D.C.
- Judith Gelernter and Kathleen M. Carley, 2015, Spatiotemporal Network Analysis and Visualization, *International Journal of Applied Geospatial Research (IJAGR)*, 6(2):77-97. DOI: [10.4018/ijagr.2015040105](https://doi.org/10.4018/ijagr.2015040105).
- Bizhan Jamshidnezhad and Kathleen M. Carley, 2014, Agent-based modeling of quality management effects on organizational productivity, *Journal of Simulation*, 9(1), 73-82. DOI: [10.1057/jos.2014.26](https://doi.org/10.1057/jos.2014.26)
- Gregory L. Alexander, Kaylan S. Pasupathy, Linsey M Steege, E. Bradley Strecker, and Kathleen M. Carley, 2014, Multi-disciplinary communication networks for skin risk assessment in nursing homes with high IT sophistication, *International Journal of Medical Informatics*, 8:7 pp. 507-517. Available from DOI: [10.1016/j.ijmedinf.2014.05.001](https://doi.org/10.1016/j.ijmedinf.2014.05.001)
- Michael J. Lanham, Geoffrey P. Morgan, and Kathleen M. Carley. 2014, "Social Network Modeling and Agent-Based Simulation in Support of Crisis De-escalation." *IEEE Transactions on Systems, Man, and Cybernetics: Systems*. 44(1): 103-110. DOI: [10.1109/TSMCC.2012.2230255](https://doi.org/10.1109/TSMCC.2012.2230255)
- Geoffrey Morgan and Kathleen M. Carley, 2014, "Comparing hiring strategies in a committee with similarity biases." *Computational & Mathematical Organization Theory*, 20(1), 1-19. DOI: [10.1007/s10588-012-9130-1](https://doi.org/10.1007/s10588-012-9130-1).
- XC Wei, Bin Hu, and Kathleen M. Carley. 2013, "Combination of Empirical Study and Qualitative Simulation for Optimizing Customer's Mobile Banking Adoption Behavior." *JASSS*, 16(3). DOI: [10.18564/jasss.2222](https://doi.org/10.18564/jasss.2222).
- Jun Ai, Hai Zhao, Zhan Su, and Kathleen M. Carley. 2013, "Evolution of IPv6 Internet Topology with Unusual Sudden Changes," *Chinese Physics B*, 22(7). Chinese Physical Society. DOI: [10.1109/WiCOM.2012.6478734](https://doi.org/10.1109/WiCOM.2012.6478734).
- Jacqueline Merrill, Mark G. Orr, Christie Y. Jeon, Rosalind V. Wilson, Jonathan Storricks and Kathleen M. Carley, 2012, "Topology of Local Health Officials' Advice Networks: Mind the Gaps," *Journal of Public Health Management Practice*, 18(6): 602-608. DOI: [10.1097/PHH.0b013e31825d20ac](https://doi.org/10.1097/PHH.0b013e31825d20ac).
- Judith A. Effken, Sheila Gephart and Kathleen M. Carley, 2013, "Using ORA to Assess the Relationship of Handoffs to Quality and Safety Outcomes," *CIN: Computers, Informatics, Nursing*. 31(1): 36-44. DOI: [10.1097/NXN.0b013e3182701082](https://doi.org/10.1097/NXN.0b013e3182701082)
- Craig Schreiber and Kathleen M. Carley, 2013, "Validating Agent Interactions in Construct Against Empirical Communication Networks Using the Calibrated Grounding Technique," *IEEE Transactions on Systems, Man and Cybernetics-Part A*, 43(1): 208-214. DOI: [10.1109/TSMCA.2012.2192104](https://doi.org/10.1109/TSMCA.2012.2192104)
- Judith A. Effken, Kathleen M. Carley, Ju-Sung Lee, Barbara B. Brewer and Joyce A. Verran, 2012, "Simulating Nursing Unit Performance with OrgAhead: Strengths and Challenges," *CIN: Computers, Informatics, Nursing*, 30(11): 620-6. DOI: [10.1097/NXN.0b013e318261f1bb](https://doi.org/10.1097/NXN.0b013e318261f1bb)
- Jacqueline A. Merrill, Kathleen M. Carley, Mark G. Orr, Christie Y. Jeon and Jonathan Storricks, 2012, "Patterns of Interaction Among Local Public Health Officials and the Adoption of Recommended Practices," *Frontiers in Public Health Services and Systems Research*, 1:1, Article 6. Available from: <http://uknowledge.uky.edu/frontiersinphssr/voll/iss1/6>
- Judith A. Effken and Kathleen M. Carley, 2011, "Exploring Groups with ORA". In Proceedings Western Institute of Nursing Communicating Nursing Research Conference 44, 114.
- Michael E. Bales, Stephen B. Johnson, Jonathan W. Keeling, Kathleen M. Carley, Frank Kunkel and Jacqueline A. Merrill, 2011, "Evolution of Coauthorship in Public Health Systems and Services Research," *American Journal of Preventive Medicine*, 41(1): 112-117. DOI: [10.1016/j.amepre.2011.03.018](https://doi.org/10.1016/j.amepre.2011.03.018)

- Judith A. Effken, Barbara B. Brewer, Melanie D. Logue, Sheila M. Gephart and Joyce A. Verran, 2011, "Using Cognitive Work Analysis to Fit Decision Support Tools to Nurse Managers' Work Flow," *International Journal of Medical Informatics*, 80(10): 698-707. DOI: [10.1016/j.ijmedinf.2011.07.003](https://doi.org/10.1016/j.ijmedinf.2011.07.003)
- Judith A. Effken, Kathleen M. Carley, Sheila Gephart, Joyce A. Verran, Denise Bianchi, Jeff Reminga and Barbara B. Brewer, 2011, "Using ORA to Explore the Relationship of Nursing Unit Communication to Patient Safety and Quality Outcomes," *International Journal of Medical Informatics*, 80(7): 507-517. DOI: [10.1016/j.ijmedinf.2011.03.015](https://doi.org/10.1016/j.ijmedinf.2011.03.015)
- Matthias Meyer, Michael A. Zaggl and Kathleen M. Carley, 2011, "Measuring CMOT's Intellectual Structure and Its Development," *Computational & Mathematical Organization Theory*, 17(1): 1-34. DOI: [10.1007/s10588-010-9076-0](https://doi.org/10.1007/s10588-010-9076-0)
- Jacqueline Merrill, Jonathan W. Keeling, Kathleen M. Carley, 2010, "A Comparative Study of 11 Local Health Department Organizational Networks," *Journal of Public Health Management and Practice: JPHMP* 2010; 16.6:564-76. Available from: [http://journals.lww.com/jphmp/Abstract/2010/11000/A\\_Comparative\\_Study\\_of\\_11\\_Local\\_Health\\_Department.12.aspx](http://journals.lww.com/jphmp/Abstract/2010/11000/A_Comparative_Study_of_11_Local_Health_Department.12.aspx)
- Patrick Wagstrom, James D. Herbsleb and Kathleen M. Carley, 2010, "Communication, Team Performance and the Individual: Bridging Technical Dependencies," Academy of Management Conference, Montreal, Canada, August 2010. Best Paper Award.
- J. Wu, B. Hu, Y. Zhang, C. Spence, S.B. Hall and Kathleen M. Carley, 2009, An agent-based simulation study for exploring organizational adaptation, *Simulation*, 85(6): 397-413. DOI: 10.1177/0037549709105267
- Jacqueline Merrill, Michael Caldwell, Maxine L Rockoff, Kristine Gebbie, Kathleen M. Carley and Suzanne Bakken, 2008, "Findings from an Organizational Network Analysis to Support Local Public Health Management," *Journal of Public Urban Health*, 85(4): 572-584. Available from: <http://www.springerlink.com/content/613k7446u8886452/>.
- Carter T. Butts and Kathleen M. Carley, 2007, "Structural Change and Homeostasis in Organizations: A Decision-Theoretic Approach", *Journal of Mathematical Sociology*, 31(4): 295 - 321. DOI: [10.1080/00222500701542517](https://doi.org/10.1080/00222500701542517)
- Kathleen M. Carley, 2006, Destabilization of Covert Networks, *Computational & Mathematical Organization Theory*, 12(1): 51-65. To be reprinted in "Applications of Social Network Analysis" edited by Peter J. Carrington.
- Yuqing Ren, Kathleen M. Carley and Linda Argote, 2006, "The Contingent Effects of Transactive Memory: When Is It More Beneficial to Know What Others Know?," *Management Science*, 52(5): 671-682. DOI: [10.1287/mnsc.1050.0496](https://doi.org/10.1287/mnsc.1050.0496)
- Michael Ashworth and Kathleen M. Carley, 2006, "Who You Know vs. What You Know: The Impact of Social Position and Knowledge on Team Performance," *Journal of Mathematical Sociology*, 30(1): 43-75. DOI: [10.1080/00222500500323101](https://doi.org/10.1080/00222500500323101)
- Marcelo Cataldo, Patrick Wagstrom, James Herbsleb and Kathleen M. Carley, 2006, "Identification of Coordination Requirements: Implications for the Design of Collaboration and Awareness Tools," Computer Supported Cooperative Work, Banff, Alberta, Canada, 2006: 353 - 362. Available from: <http://delivery.acm.org/10.1145/1190000/1180929/p353-cataldo.pdf?key1=1180929&key2=6491909811&coll=GUIDE&dl=GUIDE&CFID=34171964&CFTOKEN=77758590>. Best Paper CSCW 2006, Awarded by ACM SIGCHI.
- Zhiang Lin, Xia Zhao, Kiran Ismail and Kathleen M. Carley, 2006, "Organizational Design and Restructuring in Response to Crises: Lessons from Computational Modeling and Real World Cases," *Organizational Science*, 17(5): 598-618. DOI: [10.1287/orsc.1060.0210](https://doi.org/10.1287/orsc.1060.0210)
- Jacqueline Merrill, Suzanne Bakken, Maxine Rockoff, Kristine Gebbie, Kathleen M. Carley, 2006, "Description of a Method to Support Public Health Information Management: Organizational Network Analysis," *Journal of Biomedical Informatics*, 40(4): 422 - 428. DOI: [10.1016/j.jbi.2006.09.004](https://doi.org/10.1016/j.jbi.2006.09.004)
- Il-Chul Moon and Kathleen M. Carley, 2006, "Estimating the Near-term Changes of an Organization with Simulations," In proceedings of AAAI Fall Symposium, pp 111-118, Arlington, VA, Oct 12-15, 2006.
- Yuqing Ren and Kathleen M. Carley, 2006, "The Contingent Effects of Transactive Memory: When Is It More Beneficial to Know What Others Know?," *Management Science*, 52(5): 671-682. DOI: [10.1287/mnsc.1050.0496](https://doi.org/10.1287/mnsc.1050.0496)

- Craig Schreiber and Kathleen M. Carley, 2006, "Leadership Style as an Enabler of Organizational Complex Functioning," *E:CO* 8(4): 45-60. Available from: [http://emergentpublications.com/ECO/issue\\_contents.aspx?Volume=8&Issue=4](http://emergentpublications.com/ECO/issue_contents.aspx?Volume=8&Issue=4) & Reprinted in *Complex Systems Leadership Theory*, Hazy, J. K., Goldstein, J. A. & Lichtenstein, B. B. (Eds.) Mansfield, MA: ISCE Publishers, Ch. 6: 227 – 246.
- Kathleen M. Carley, 2005, "Organizational Design and Assessment in Cyberspace," in *Organizational Simulation* William B. Rouse, Kenneth R. Boff (Eds.), John Wiley Sons Inc., Hoboken, New Jersey.
- Jana Diesner, Terrill Frantz and Kathleen M. Carley, 2005, "Communication Networks from the Enron Email Corpus: It's Always About the People. Enron is no Different," *Computational and Mathematical Organization Theory*, 11.3: 201 – 228. DOI: [10.1007/s10588-005-5377-0](https://doi.org/10.1007/s10588-005-5377-0)
- Judith A. Effken, Barbara B. Brewer, Anita Patil, Gerri S. Lamb, Joyce A. Verran and Kathleen M. Carley, 2005, "Using OrgAhead, a Computational Modeling Program, to Improve Patient Care Unit Safety and Quality outcomes," *International Journal of Medical Informatics*, 74(7-8): 605-613. DOI: [10.1016/j.ijmedinf.2005.02.003](https://doi.org/10.1016/j.ijmedinf.2005.02.003)
- Manju K. Ahuja, Dennis F. Galletta and Kathleen M. Carley, 2003, "Individual Centrality and Performance in Virtual R&D Groups: An Empirical Study," *Management Science*, 49(1): 21-38, DOI: [10.1287/mnsc.49.1.21.12756](https://doi.org/10.1287/mnsc.49.1.21.12756)
- Kathleen M. Carley, 2003, "Computational Organizational Science and Organizational Engineering," *Simulation Modeling Practice and Theory*, 10(5-7): 253-269. DOI: [10.1016/S1569-190X\(02\)00119-3](https://doi.org/10.1016/S1569-190X(02)00119-3)
- Judith A. Effken, Barbara B. Brewer, Anita Patil, Gerri S. Lamb, Joyce A. Verran and Kathleen M. Carley, 2003, "Using computational modeling to transform nursing data into actionable information," *Journal of Biomedical Informatics*, 36(4-5): 351-361. DOI: [10.1016/j.jbi.2003.09.018](https://doi.org/10.1016/j.jbi.2003.09.018)
- Maksim Tsvetovat and Kathleen M. Carley, 2002, "Emergent Specializations in a Commodity Market: A Multi-Agent Model" *Journal of Computational and Mathematical Organization Theory*, 8(3): 221-234. - Graduate Student Best Paper Award, CASOS 2001 Conference. DOI: [10.1023/A:1020719614091](https://doi.org/10.1023/A:1020719614091)
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K.M. Carley September 14, 2017

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K.M. Carley September 14, 2017

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- Craig Schreiber and Kathleen M. Carley, 2005, "Ineffective Organizational Practices at NASA: A Dynamic Network Analysis," Carnegie Mellon University, School of Computer Science, Institute for Software Research International, Technical Report, CMU-ISRI-05-135.
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- Michael Kowalchuck, Singh Siddhartha and Kathleen M. Carley, 2004. "CORES - Complex Organizational Reasoning System," CASOS Technical Report. Carnegie Mellon University, School of Computer Science, Institute for Software Research International, CMU-ISRI-04-131.
- Ju-Sung Lee and Kathleen M. Carley, 2004. "OrgAhead: A Computational Model of Organizational Learning and Decision Making [Version 2.1.5]," Carnegie Mellon University, School of Computer Science, Institute for Software Research International, Technical Report CMU-ISRI-04-117.

K.M. Carley September 14, 2017

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- Craig Schreiber and Kathleen M. Carley, 2004. "Construct - A Multi-agent Network Model for the Co-evolution of Agents and Socio-cultural Environments," Carnegie Mellon University, School of Computer Science, Institute for Software Research International, Technical Report CMU-ISRI-04-109.
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- Ian A. McCulloh and Kathleen M. Carley. 2011. "Detecting change in longitudinal social networks." United States Military Academy, Network Science Center (NSC), West Point, NY. ADA550790.
- Ian A. McCulloh and Kathleen Carley. 2009. "Longitudinal Dynamic Network Analysis." Using the Over Time Viewer Feature in ORA. Technical Report No. CMU-ISR-09-118. Carnegie Mellon University, School of Computer Science, Institute for Software Research, Pittsburgh, PA. ADA528413.
- Ian A. McCulloh and Kathleen M. Carley. 2008. "Social network change detection." No. CMU-ISR-08-116. Carnegie Mellon University, School of Computer Science, Institute for Software Research, Pittsburgh, PA. ADA488427.
- Ian A. McCulloh, Matthew Webb, John Graham, Kathleen Carley, and Daniel B. Horn. 2008. "Change detection in social networks." United States Military Academy, Department of Mathematical Sciences, West Point, NY. Technical Report 1235.
- Ian A. McCulloh and Kathleen M. Carley. 2008. "Dynamic Network Change Detection." United States Military Academy, West Point, NY. ADA505939.
- Ian A. McCulloh, Kathleen Carley, and Matthew Webb. 2007. "Social network monitoring of Al-Qaeda." United States Military Academy, Department of Mathematical Sciences, West Point, NY. ADA490103.
- Shawn A. Weil, Kathleen M. Carley, Jana Diesner, Jared Freeman, and Nancy J. Cooke. 2006. "Measuring situational awareness through analysis of communications: A preliminary exercise." APTIMA INC, Woburn, MA. ADA463341.
- John M. Levine, Richard L. Moreland, Linda Argote, and Kathleen M. Carley. Personnel turnover and team performance. Pittsburgh University, Pittsburgh PA, ADA433897
- Webb Stacy, William Salter, Daniel Serfaty, Jean MacMillan, Kari Chopra, Georgiy Levchuk, Tim Burt et al. 2005. "NEMESIS: Network Modeling Environment for Structural Intervention Strategies." APTIMA INC, Woburn, MA. No. AP-R-1280. ADA431203.
- Craig Schreiber, S. Singh, S. and Kathleen M. Carley, 2004. Construct-a multi-agent network model for the co-evolution of agents and socio-cultural environments (Technical Report No. CMU-ISRI-04-109). Pittsburgh, PA: Carnegie Mellon University, School Computer Science, Institute for Software Research International.
- Robert Berhman and Kathleen M. Carley. 2003. "Modeling the structure and effectiveness of intelligence organizations: Dynamic information flow simulation." Carnegie Mellon University, Pittsburgh, PA. ADA467468.
- Kathleen M. Carley and David Krackhardt. 1999. "A typology for C2 measures." Carnegie Mellon University, Pittsburgh, PA. ADA458997.

### **OTHER PUBLICATIONS**

- Sumeet Kumar and Kathleen M. Carley, 2016, "DDoS Cyber-Attacks Network: Who's Attacking Whom," Paper for Poster Presentation at Intelligence and Security Informatics (ISI), 2016 IEEE International Conference, Tuscan, AZ, September 28-30, 2016.

- Tanmay Sinha, Wei Wei, and Kathleen M. Carley, 2015, Modeling Similarity in Incentivized Interaction: A Longitudinal Case Study of StackOverFlow, Paper for Poster Presentation at Networks in the Social and Information Sciences, NIPS 2015, Montreal Quebec, Canada.
- Elizabeth McGhee-Hassrick, Kathleen M. Carley, Kenneth Joseph, and Bennett Leventhal, 2014, Can Reconfigured Schools Improve Disparities in Autism Treatments? Conference on Complex Systems, Health Disparities & Population Health: Building Bridges, Feb. 24-25, 2014 in the Natcher Conference Center at the NIH Campus in Bethesda, MD.
- F. Can, Kathleen M. Carley, I. Kind, and P.S. You, 2012, Message from the IEEE/ACM ASONAM 2012 general chairs, Proceedings of the 2012 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, ASONAM 2012.
- Michael J. Lanham, Geoffrey P. Morgan and Kathleen M. Carley, 2011, "Simulating Integrated Resilient Command and Control (C2) in Contested Cyber Environments (System Architectures Laboratory, Trans.)," in Alexander Levis, Kathleen M. Carley and Gabor Karsai (Eds.), Resilient Architectures for Integrated Command and Control in a Contested Cyber Environment (pp. 95-106). Fairfax, VA: The Volgenau School of Engineering Dept. of Electrical and Computer Engineering System Architectures Laboratory, George Mason University.
- Michael J. Lanham, Geoffrey P. Morgan and Kathleen M. Carley, 2011 "Social Network Modeling and Simulation of Integrated Resilient Command and Control (C2) in Contested Cyber Environments (System Architectures Laboratory, Trans.)," in Alexander Levis, Kathleen M. Carley and Gabor Karsai (Eds.), Resilient Architectures for Integrated Command and Control in a Contested Cyber Environment (pp. 63-94). Fairfax, VA: The Volgenau School of Engineering Dept. of Electrical and Computer Engineering System Architectures Laboratory, George Mason University.
- Kathleen M. Carley, Neal Altman, Michael Martin, Mike Kowalchuck, Joanne Meikle and Traci Suiter, 2010, "Compliance, Assistance and the SmartCard," Refereed poster presented at the 2010 IRS Research Conference, Washington, DC. <http://www.irs.treas.gov/pub/irs-soi/10presconsmart.pdf>.
- G. Andighetto, G. Boella, J. Sichman, H. Verhagen, Kathleen M. Carley, C. Castelfranchi, R. Conte, G.A.G. Lugo, C. Sierra, P. Tema, L. van der Torre, S. Villata, 2009, Social networks and multi-agent systems symposium (SNAMAS-09) (editorial), In Proceedings of the 23rd Convention of the Society for the Study of Artificial Intelligence and Simulation of Behaviour, AISB 2009; Edinburgh; United Kingdom, p. 1.
- Jamie F Olson and Kathleen M Carley, 2008, Summarization and Information Loss in Network Analysis. In Workshop on Link Analysis, Counter-terrorism, and Security held in conjunction with the SIAM International Conference on Data Mining (SDM), April 2008.
- Daniel Zeng, Fei-Yue Wang and Kathleen M. Carley, 2007, "Guest Editors' Introduction: Social Computing," IEEE Intelligent Systems, September/October 2007, 22.5: 20-22. DOI: [10.1109/MIS.2007.88](https://doi.org/10.1109/MIS.2007.88).
- David Skillicorn and Kathleen M. Carley, 2005, Letter from the Editors – Special Issue on DataMining Large Scale Temporal Data-Bases, Computational and Mathematical Organization Theory, 11(2):95.
- Anderson P. Meyer, Kathleen Eisenhardt, Kathleen M. Carley and Andrew Pettigrew, 1999, "Introduction to the special issue: Applications of complexity theory to organization science," Organization Science, 10.3: 233-236, DOI: [10.1287/orsc.10.3.233](https://doi.org/10.1287/orsc.10.3.233).
- Michael J. Prietula, Kathleen M. Carley and Les Gasser, 1998, "A Computational Approach to Organizations and Organizing," Simulating Organizations: Computational Models of Institutions and Groups, Edited by Michael J. Prietula, Kathleen M. Carley and Les Gasser (Eds.), Menlo Park, CA: AAAI Press / The MIT Press, Pp. xiii-xix.
- Kathleen M. Carley, 1997, "Introduction: Computational Organization Theory," Journal of Mathematical Sociology. 22.2: 91-93. (Editor's comment).
- Kathleen M. Carley and William A. Wallace, 1995, Editorial, Computational and Mathematical Organization Theory, 1.1:5-7.
- Kathleen M. Carley and Zhiang Lin, 1994, "Organizational Shifts and Performance," Sociological Abstracts.
- Constantine P. Papageorgiou and Kathleen M. Carley, 1993, "A cognitive model of decision making: chunking and the radar detection task," Carnegie Mellon University. School of Computer Science, CMU-CS-93-228 Research paper.
- Kathleen M. Carley, Les Gasser, Daniel O'Leary and Michael J. Prietula, 1993, Editorial, "Computational and Mathematical Models of Organizations," International Journal of Intelligent Systems in Accounting, Finance and Management, 2.4: 211-213.

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- Kathleen M. Carley and David S. Kaufer, 1993, "Changing the Face of Science: The Impact of Print," Sociological Abstracts.
- Kathleen M. Carley, 1993, "Extracting Culture Through Textual Analysis," Abstract Only, Sociological Abstracts, 22.4: 291-312, DOI: [10.1016/0304-422X\(94\)90011-6](https://doi.org/10.1016/0304-422X(94)90011-6).
- Kathleen M. Carley and John Harrald, 1992, "Organizing for Response: Comparing Practice Plan and Theory," Natural Hazards Observer, 17.2: 1-3.
- Zhiang Lin and Kathleen M. Carley, 1992, "Maydays and Murphies: A Study of the Effect of Organizational Design, Task and Stress on Organizational Performance," Sociological Abstracts.
- Kathleen M. Carley and Norm Hummon, 1992, "Why New Fields Emerge (or Fail to Do So): A Preliminary Examination," Sociological Abstracts.
- Kathleen M. Carley, 1991, "Structural Constraints on Communication: The Diffusion of the Homomorphic Signal Analysis Technique through Scientific Fields," Abstract Only, Sociological Abstracts, 15.3-4: 207-246, DOI: [10.1080/0022250X.1990.9990070](https://doi.org/10.1080/0022250X.1990.9990070).
- Kathleen M. Carley, 1991, "The Value of Cognitive Foundations for Dynamic Social Theory," Abstract Only, Sociological Abstracts, 14: 171-208.
- Kathleen M. Carley, 1991, "On the Persistence of Beliefs," Sociological Abstracts.
- Kathleen M. Carley, 1989, "Group Interaction, Stability and Reconstruction," Sociological Abstracts.
- Kathleen M. Carley, 1988, "Cognitive and Social Stability," Sociological Abstracts.
- Kathleen M. Carley and Kira Wendt, 1988, "The Impact of Electronic Mail on the Diffusion of Scientific Information," Sociological Abstracts.
- Kathleen M. Carley, 1988, "Artificial Intelligence and Emotions," Newsletter for Sociology and Emotions.
- Kathleen M. Carley, 1987, "Increasing Consensus through Shared Social Position and Interaction," Sociological Abstracts.
- Kathleen M. Carley, 1987, "Language: Society's Chronicle," Sociological Abstracts.

### **BOOK REVIEWS**

- Kathleen M. Carley, 1989. Review of Saris and Gallhofer "Sociometric Research VI: Data Collection and Scaling," Journal of Classification Research, 6:2: 301-304.

### **SELECTED WORKING PAPERS**

- Terrill L. Frantz, Ian McCulloh and Kathleen M. Carley, 2008, "Estimating the Reliability of Top-Actor Identification," Network Science Report Journal, 2, The Network Science Center, United States Military Academy.
- Maksim Tsvetov, Kathleen M. Carley and Katia Sycara, "A Multi-Agent Model of Emergence of Market Segmentation" in Modeling Autonomous Agents in a Multi-Agent World IV Lecture Notes on Artificial Intelligence 2004, Edited by Yves Demazeau, Francisco Garijo (Eds.), Springer-Verlag.
- Carter Butts and Kathleen M. Carley, 2001, "Spatial Models of Large Scale Interpersonal Networks," CASOS Working Paper, Carnegie Mellon University.
- Carter Butts and Kathleen M. Carley, 2000, "Canonical Labeling to Facilitate Graph Comparison."
- Kathleen M. Carley, "Adaptive Organizations and Emergent Forms," CASOS Working Paper, Carnegie Mellon University.
- Doug Wholey, Sara Kiesler and Kathleen M. Carley, "Learning Teamwork: Emergence of Communication and Structure in Novice Software Development Teams," Social and Decisions Sciences, Carnegie Mellon University.
- Kathleen M. Carley and David Krackhardt, "A Structural Perspective on Organizational Cognitions: Attributions of Power, Performance and Attitudes," Working Paper, H.J. Heinz III School of Public Policy and Management, Carnegie Mellon University.

### **INVITED KEYNOTES AND PLENARY TALKS**

- 8/2017 "Social Influence Bots and Disinformation," JCOIE Workshop, Disinformation, Propaganda, & Computational Propaganda Panel, Washington D.C.

- 7/2017 "Social Influence on the Web: Bots and Fake News," IC2S2, Cologne, Germany
- 4/2017 "Networks and Social Change," Rand Workshop – DARPA Santa-Monica, CA
- 3/2017 "Wisdom or Ignorance: The thoughtful use of networks," 8th Annual ANN SONIC workshop on Network Theory, March 23-25, 2017 at USC, in Los Angeles
- 12/2016 "Knowledge Dynamics," Networks as Indicators of Science and Engineering Activity (NCES) NSF Workshop, George Washington University, Washington, DC
- 10/2016 "NATO: Lessons Learned on Network Analysis of Social Media," TIDESPRINT – NATO, Virginia Beach, VA
- 10/2016 "Dynamic Networks in a Cyber-Mediated World." Keynote PRO-VE 2016 – Collaboration in a Hyperconnected World, Porto, Portugal
- 9/2016 "Tracking Change in the Cyber-Mediated World." Symposium on Frontiers on Big Data, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL
- 7/2016 "Tracking Dynamic Networks: Data Challenges for Real World Applications," Keynote IRI, Pittsburgh, PA
- 4/2016 "Dynamic Network Analysis of Social Media Data," New Trends in Social Media, NATO Strategic Communications Centre of Excellence STRATCOM, Riga Latvia
- 4/2016 "Social Media Network Analytics," NATO ACT-Sprint, Krakow, Poland
- 3/2016 "Dark Networks and Dynamic Network Analytics," Dark Web Conference, Naval Post Graduate School, Monterey, CA
- 10/2015 "Predicting the Group: Data Science for Human Socio-Cultural Understanding and Prediction," University of Michigan Data Science Symposium, Ann Arbor, MI
- 6/2015 "Twitter, Terror and Terms: Network analytics for assessing large scale media data," Keynote PolNet, Portland, OR
- 5/2015 "Social Cognition: Intelligence within and about networks," California Cognitive Science Conference, Berkeley, CA
- 3/2015 "Social Media Analytics Using Dynamic Network Methodologies," Keynote, DHS CCICADA, Pittsburgh, PA
- 7/2014 "Networks, Language, Organizations," Academy of Management, Philadelphia, PA
- 7/2014 "Social Media, Security and Personal Information," Keynote Networking Information Technology Research and Development (NITRD), Washington DC
- 3/2014 "Analyzing and Simulating Dynamic Networks," Rand Conference, Arlington, VA
- 3/2014 "Dynamic Network Analytics for Cyber Warfare," CENTCOM Technical Exchange, Tampa, FL
- 11/2013 "Network Analysis and Visualization," Approaches to Dynamic Network and Scientometric Analysis within the IC, Washington DC
- 9/2013 "Open Source Exploitation for Understanding Covert Networks," Dark Networks, Westpoint, NY
- 8/2013 "Networks and Agents: The Value of a Multi-Level Approach to Agent-Based Dynamic- Network Modeling." Statistical and Applied Mathematical Sciences Institute (SAMSI), Raleigh-Durham, NC
- 5/2013 "Crisis Mapping: Big Data from a Dynamic Network Analytic Perspective," World Summit on Big Data and Organization Design, Paris, Fr.
- 3/2013 "Dynamic Network Approach to Health Surveillance," PACOM S&T 2013, Honolulu, HI
- 10/2012 "Geo-Temporal Dynamic Network Analysis: Lessons Learned from Arab Spring," GEOINT 2012: Creating the Innovation Advantage, Orlando, FL
- 9/2012 "Geo-Spatial Network Analysis: Applications and Challenges," UBICOM, Keynote, Pittsburgh, PA
- 6/2012 "Political Evolution and Revolution: A Network Assessment of Sudan and Arab Spring Power Transformations," Keynote, St. Petersburg, Russia
- 4/2012 "Secondary Actors and Communicative Reach," Graph Exploitation, Keynote, Boston, MA
- 4/2012 "Dynamic Network Analysis," SBP12 International Conference, College Park, MD
- 3/2012 "Dynamic Network Analysis of the Arab Spring," IMA, University of Minnesota, Minneapolis, MN
- 5/2011 "Crisis Response – Rapid Ethnographic Assessment," Stanford Social Conference on Humanitarian Assistance and Disaster Response, Colorado Springs, CO.
- 3/2011 "Dynamic Networks," BAH conference, McClean, VA.
- 3/2011 "Networks of Learners: Linking Network Science and Agent Based Modeling," Behavioral Representation in Modeling and Simulation (BRIMS) Conference, March 23, 2011, Sundance, UT.

- 2/2011 "Embedded Conversations: Trails of Constraints in Every Day Life," INSNA Keynote, February 2011, St. Petersburg, FL.
- 12/2010 "The Social Network Perspective," Spatio-Temporal Constraints on Social Networks / Specialist Meeting, Santa Barbara, CA.
- 9/2010 "Complexity: A Dynamic Network Perspective" Keynote, Forum on Complex Systems, UNC Charlotte, Charlotte, NC
- 12/2009 "Dynamic Network Analytical Reasoning", Queens College, London, England.
- 10/2009 "Geo-Temporal Network Analysis", Keynote, USMA Network Science Conference, West Point, NY.
- 10/2009 "Dynamic Network Analysis: From Social Network Analysis to Network Science to Cyber mediated Dynamic Network Science", USMA Network Science Conference, West Point, NY.
- 9/2009 "Dynamic Network Analysis for Naval Operations" *ONR Working Group on New Maritime Technology Workshop* 2009, Sep 24; Honolulu, HI
- 9/2009 "Small World Problem and the Navy" *ONR Working Group on New Maritime Technology Workshop* 2009, Sep 24; Honolulu, HI
- 7/2009 "Dynamic Network Analysis and Security" CISDA Computational Intelligence for Security and Defense Applications 2009, Ottawa, Ontario
- 6/2009 "Dynamic Network Analysis: New Capabilities and a Look into the Future." Human Behavior-Computational Intelligence Modeling Conference 2009, Oak Ridge, Tennessee
- 4/2009 "Dynamic Network Analysis", Keynote, Social Networks and Multiagent Systems Symposium, AISB, Edinburgh, Scotland.
- 10/2008 "Geo-Temporal Network Analysis," USMA Network Science Conference, West Point, NY
- 9/2008 "Networks Through Space and Time," Intra-Organizational Networks Conference (ION), Lexington, Kentucky
- 6/2008 "Organizational Modeling with Dynamic Network Analysis," IBM Services Research Strategy Meeting, Hawthorne, New York.
- 5/2008 "Modeling and Simulation, State of the Art," ONR Social, Cultural and Computational Science Workshop, Washington DC.
- 5/2008 "Dynamic Network Analysis to Support Counter-Narcotics Activities" 2008 National HIDTA Conference, Coronado, CA.
- 4/2008 "Advances and Challenges in Dynamic Network Analysis," Analyzing the Impact of Emerging Societies on National Security, MORS, Chicago, IL
- 4/2008 "Vibes," OneSaf, Orlando, FL.
- 3/2008 "Dynamic Network Analysis," Exploring Creative Approaches to Intelligence Problems, Washington DC.
- 3/2008 "Dynamic Network and Geo-Spatial Representation," International Workshop on Cultural Intelligence, London, UK.
- 3/2008 "Dynamic Network Analysis," National Guard Counter Drug Conference, Washington DC.
- 1/2008 "Dynamic Network Analysis," California Campaign Against Marijuana Planning Conference, Lake Tahoe, CA.
- 10/2007 "Dynamic Network Analysis: Harnessing Complexity," International Conference on Complex Systems (ICCS-07), Boston, MA.
- 10/2007 "The promise and challenge of linking social and spatial networks," Frontiers in Transportation Social Interaction, University of Amsterdam, The Netherlands.
- 9/2007 "Dynamic Network Analysis with ORA: Key Challenges," DIMACS/DyDAn Workshop on Computational Methods for Dynamic Interaction Networks, Rutgers University, New Brunswick, NJ.
- 7/2007 "Network Dynamics: The Challenge of Enron and al Qaeda," UK Social Network Conference, University of London, London UK.
- 6/2007 "Dynamic Network Analysis Applications for HPC," DOD High Performance Computing Modernization Program's (HPCMP) User's Group Conference (UGC), Pittsburgh, PA.
- 4/2007 "Dynamic Network Analysis for Organizational Management," Navigating Complexity: Doing more with less, 2007 Almaden Institute, IBM Almaden Research Center, San Jose, CA.
- 3/2007 "Dynamic Network Approaches to Counter-Terrorism," Kilby Lecture at the GOMATech 07, Lake Buena Vista, FL.
- 2/2007 "Mapping Social Networks with Intelligent Agents," STEP Conference on Improvised Online Communications Networks, MITRE Corporation, McLean, VA.



- 10/2006 "A Dynamic Network Approach to the Assessment of Terrorist Groups and The Impact of Alternative Courses of Action," Visualising Network Information Workshop, Copenhagen, Denmark.
- 3/2006 "BioDefense through City Level Multi-Agent Modeling of Bio and Chemical Threats," Spring Biosurveillance Workshop, Tucson, AZ.
- 11/2005 "Dynamic Network Analysis Approach to Adversarial Modeling," AFOSR/Cultural Modeling Conference, San Antonio, TX.
- 6/2005 "Destabilizing Terrorist Network," Defeat Network Enemy Roundtable, Pentagon, Washington D.C.
- 2/2005 "Simulation Tool for BioDefense: BioWar," BioTech Conference, Evanston, IL.
- 11/2004 "An integrated approach to evaluating strategic interventions in terrorist networks," Global War of Terrorism Tool Conference, MORS, US Naval War College Newport, Rhode Island.
- 9/2004 "Dynamic Network Analysis for Homeland Defense: Destabilizing Terror Networks," DIMACS, Rutgers, The State University.
- 2/2004 "Capabilities and Limitations of Current Multi-Agent and Network Modeling," Aptima, Modeling Emerging Asymmetric Threats Workshop, Washington DC.
- 11/2003 "Modeling Covert Networks," UES Workshop, "Culture and Personality in Models of Adversarial Decision-Making," Washington, DC.
- 10/2003 "Network and multi-agent based approach," Aptima, Modeling Emerging Asymmetric Threats Workshop, Washington, DC.
- 3/2003 "Destabilizing Covert Networks", Stonecipher Symposium 2003 on Homeland Security, Tennessee, <http://www.tntech.edu/stonecipher/>
- 10/2002 "Simulating Society: The Tension Between Transparency and Veridicality", Keynote, Agents 2002, Chicago, IL.
- 3/2002 "Computational Organization Science: The systemic analysis of social complexity", Plenary, Naval Post Graduate School, Monterey, CA
- 1/2002 "Destabilizing Networks" Society for Computer Simulation, VWSIM, San Antonio, TX
- 5/2002 "Dynamic Network Analysis" National Academy of Science Presentation
- 5/2001 "Organizational Adaptation in a Changing Environment" Keynote, Japanese Society for Artificial Intelligence (JSAI 2001). Matsue City, Shimane Japan
- 5/2001 "On the Evolution of Networks", Plenary, JSAI 2001 International Workshop on Agent-based Approaches in Economic and Social Complex Systems (AESCS 2001) Matsue City, Shimane Japan.
- 1/2001 "Implications of Complexity Research for Organizational Change" Keynote, NSF Design, Service and Manufacturing Grantees and Research Conference, Tampa, FL
- 11/2000 "Organizations as Intelligent Complex Adaptive Systems" Plenary, IBERAMIA 2000, Sao Paulo, Brazil
- 10/2000 "Computational Social Science: Agents, Interaction and Dynamics", Agents 2000, Keynote, University of Chicago, Chicago IL
- 5/2000 "Complexity and Society", Plenary, NECSI, Nashua NH
- 7/1999 "Opening up the Black Box: Organizational Design as Dynamic Networks." PEW Workshop
- 7/1998 "Adaptive Organizations and Emergent Forms" Plenary, Third International Conference on Multi-Agent Systems, Cite des Sciences - La Villette, Paris, France
- 7/1990 "Changing Information Technologies," Keynote address IFPS Meeting. Pittsburgh, PA.

#### **INVITED TALKS**

- 7/2017 "Controlling Communities in Social Media," Dark Webs Panel at NASN, Washington DC
- 5/2017 "Dynamic Network Analysis," The Hsue-Shen Tsien International Distinguished Scientists Lecture Series at Jiangtong University in Xi'an
- 4/2017 "Health Care Trails and Care Coordination for Use with ADT Data." Pittsburgh Health Data Alliance – 'The Next Big Thing', Pittsburgh, PA
- 3/2017 "Network Analytics for Anti-Social Computing", South Big Data Hub, Data Science Roundtable on Anti-Social Computing: Bots, Lies, and the New Information Environment, Institute for Software Research, CMU.
- 3/2017 "Wisdom or Ignorance: The Heedful Manipulation of Networks," Informatics Institute, University of Florida, Gainesville, FL
- 2/2017 "Dynamic Network Analysis: Health Applications," PHDL Seminar Series, University of

- Pittsburgh, PA
- 12/2016 “Dynamic Network Analysis and Big Data,” The Coffee Hour, Department of Geography, Pennsylvania State University, State College, PA
- 11/2016 “Changing Networks Due to Terms, Twitter and Threats,” Beckman Institute Lecture Series, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL
- 10/2016 “Dynamic Network Analysis,” Porto, Portugal
- 9/2016 “Future for Dynamic Networks”, Future Directions in Network Sciences, Arlington, VA
- 3/2016 “Advances in Dynamic Network Analytics,” Chinese Academy of Science, Beijing, China
- 3/2016 “Dynamic Network Analysis,” SYSU-CMU International Joint Research Institute (JRI), Shunde, China
- 8/2015 “Tsunami Warning and Response Social Media System”, Badung Indonesia
- 8/2015 “Tsunami Warning and Response Social Media System & Demo”, Padang Indonesia
- 7/2015 “Characterizing Insider Threats Using Network Analytics,” Science of Security Lablet Meeting, Carnegie Mellon University, Pittsburgh, PA
- 6/2015 “Twitter Tacking System for Hazard Sees,” Hazard SEES Disaster Response Workshop, Pittsburgh, PA
- 5/2015 “Social Media Analytics- from the Arab Spring to ISIS,” Human Security and the New Information Environment Workshop, CASL, College Park, MD
- 4/2015 “Dynamic Network Analysis & Global Mapping,” National Research Council and NGA, Washington DC
- 4/2015 “Cyber Security & Dynamic Network Methodologies,” CERT, Pittsburgh, PA
- 11/2014 “Twitter for Disaster Planning in Padang,” Hazard SEES Disaster Response Workshop, Pittsburgh, PA
- 6/2014 “Dynamic Network Analysis,” Soft Power Solutions, Chantilly VA
- 5/2014 “Remote CBRNE Assessment using Dynamic Network Analytics,” Defense Threat Reduction Agency, Washington DC
- 5/2014 “Social Media Analytics,” ONR Demonstration Day, Arlington, VA
- 4/2014 “GENNET: Dynamic High Fidelity Synthetic Social Networks,” SMISC/Adams Review, Washington DC
- 4/2014 “Twitter Usage in Indonesia,” with J. Pfeffer, M. Malik, P. Landwehr, and W. Wei, Hazard SEES Disaster Response Workshop, Pittsburgh, PA
- 4/2014 “Using Twitter to Track Disaster Needs and Response,” with J. Pfeffer, P. Landwehr, and W. Wei, and M. Malik, Hazard SEES Disaster Response Workshop, Pittsburgh, PA
- 2/2014 “The Power of Meta-Networks for Rapid Ethnographic Assessment,” Università di Lugano, Lugano, Switzerland
- 10/2013 “The Power of Meta-Networks for Rapid Ethnographic Assessment,” Duke University, Raleigh-Durham, NC
- 10/2013 “A Rapid Ethnographic Assessment of Myanmar,” Social Computing and Crisis in the New Information Age, Brussels Belgium
- 10/2013 “Smart De-Identification,” Social Computing and Crisis in the New Information Age, Brussels Belgium
- 10/2013 “Media and State Stability: Lessons Learned,” Social Computing and Crisis in the New Information Age, Brussels Belgium
- 10/2013 “GENNET: Advanced System for Synthesis of High Fidelity Social Networks to Support SHIELD,” SMISC/Adams Review, Washington DC
- 9/2013 “A Global Perspective on Cyber Attacks,” NSA Security Lablet, Carnegie Mellon University, Pittsburgh, PA
- 9/2013 “Multi-Source Assessment for State Stability.” Minerva, Washington DC
- 9/2013 “Open Source Exploitation for Understanding Covert Networks,” Dark Networks, USMA, Westpoint, NY
- 8/2013 “Remote Capabilities Assessment,” DTRA, Springfield, VA
- 8/2013 “Dynamic Network Analytic Applications for Big Data,” ASONAM, Niagra Falls, Canada
- 7/2013 “Dynamic Network Analysis: Security Applications,” Creighton University, Omaha Nebraska
- 7/2013 “Dynamic Networks: Diffusion and Evolution,” Creighton University, Omaha Nebraska
- 3/2013 “Social Media and BioSurveillance: Deep Dive on Dynamic Network Analysis,” PACOM S&T 2013, Honolulu, HI
- 7/2012 “Social Networks, Social Media, Social Change,” AHFE 2012, San Francisco, CA with Jürgen

- Pfeffer.
- 7/2012 "Multi-Modeling and Socio-Cultural Complexity," AHFE 2012, San Francisco, CA with Geoffrey Morgan, Michael Lanham, Jürgen Pfeffer.
- 5/2012 "Dynamic Network Analysis," SOCCENT Deep Dive, SOCCENT Tampa, FL.
- 5/2012 "The Conversations of Every Day Life: From Trails to Networks," Vrije Universiteit, Amsterdam, Netherlands
- 3/2012 "Dynamic Network Analysis of Conflict Situations." Krasnow Institute, George Mason University, Fairfax, VA
- 2/2012 "Social Dynamics: Change in Web-Mediated Geographically Embedded Social Networks," AAAS, Vancouver, CA
- 12/2011 "Measurement & Modeling," Weak Tie Networks Workshop, Duke, Raleigh-Durham, NC
- 9/2011 "Dynamic Network Assessment for SNACR," OSD HSCB Open House, Arlington, VA
- 8/2011 "Network Dynamics," Graph Exploitation Symposium – Sensing and Sense Making, Endicot House, Boston, MA
- 7/2010 "Dynamic Network Analysis: COIN applications," Defense Science Board, COIN:ISR
- 6/2010 "Predicting Intentional and Inadvertent Non-compliance," IRS Research Conference, June 29-30, Washington, DC.
- 4/2010 "Individuals and Organizations: The Dynamic Networks of Conflict." Networks and Cognition Workshop, RPI, Troy NY
- 11/2009 "Geo-Spatial Dynamic Network Analysis", HSCB Geospatial Analysis, Modeling and Visualization Workshop.
- 11/2009 "Geo-Based Dynamic Network Metrics", Presented at the 2009 USACE Research and Development Conference, 2009 November, 17; Memphis, TN.
- 11/2009 "A Dynamic Network Analysis Approach to Trust", AFRL Trust Workshop, Dayton, OH.
- 10/2009 "Dynamic Network Analysis: Management and Intervention," Network Science Workshop, Carnegie Mellon University, Tepper School of Business, Pittsburgh, PA.
- 10/2009 "Multi-modeling, Meta-modeling and M&S Technology". *Modeling and Simulation in Support of Deterrence Campaign Planning workshop*. 2009 October 14 & 15; New Jersey
- 7/2009 "Validation and Agent-Based Models," Academy of Management Annual Meeting 2009, Professional Development Workshop, Applied Agent-based Modeling in Management Research (PDW Session 27), Chicago, IL, August 7, 2009.
- 6/2009 "Pattern Detection for Merchant Marine Vessel Traffic," Host, ONR Workshop, Carnegie Mellon University, Pittsburgh, PA. June 25-26, 2009.
- 4/2009 "Information & Belief Diffusion Through Social Networks: Empirically Grounded Simulation," Studying Society in a Digital World Conference, Princeton, New Jersey.
- 3/2009 "Dynamic Network Analysis", Dynamic Networks Workshop, Venice Italy.
- 12/2008 "Dynamic Network Analysis: From Words to Spatio-Temporal Network Analytics," Pennsylvania State University, State College, PA.
- 12/2008 "Dynamic Networks Analysis in the Security Domain," European Conference on Intelligence Security Informatics 2008, Copenhagen, Denmark.
- 10/2008 "Provision of Services and Information to the TaxPayer: A Computational Reasoning Approach," INFORMS, Washington D.C.
- 10/2008 "DNA-Hard Problems," Centra Tech., Washington D.C.
- 9/2008 "Networks and Trails," Oakridge National Labs, Knoxville, TN
- 5/2008 "Modeling and Simulation: State of the Art," Social-Cultural Workshop 2008, Washington D.C.
- 2/2008 "Identification of Human and Organizational Strengths and Vulnerabilities in C3I Structures that Enable or Inhibit Dynamic Decision Making," CTA ARL Meeting, Boulder, CO.
- 1/2008 "State of Computer Modeling of the Adversary." Defense Science Board Adversary Modeling Meeting, Washington D.C.
- 12/2007 "Trails and Networks: Analytics for Counter Terrorism," Lawrence Livermore National Laboratory, Livermore, CA.
- 11/2007 "Model Exemplar: Social Network Analysis," Strategic Multi-layer Assessment Work Shop, SOCOM, Tampa, FL.
- 10/2007 "BioWar: Validation and Forecasts related to Pandemic Influenza," International Conference on Complex Systems (ICCS-07), Boston, MA.
- 6/2007 "Managing and Disrupting Dynamic Networks," Director's Special Colloquium Talk, Argonne National Laboratory, Argonne, IL.

- 6/2007 "BioWar: Assessing the Impact of Pandemic Influenza on Cities using Multi-agent Network Models," The MORSS (Military Operations Research Society Symposium), U.S. Naval Academy, Annapolis, MD.
- 4/2007 "Predicting Networks," USMA Network Science Meeting, West Point, NY
- 3/2007 "Adversary Behavioral Modeling: Available Tools and Applications for the Warfighter," Montgomery, AL, Maxwell AFB
- 2/2007 "Assessing Terror Networks," Computer Science, Syracuse University, Syracuse, NY.
- 12/2006 "Adversarial Reasoning with Networks," Maritime Strategy Options Workshop, Naval War College, Newport, RI.
- 11/2006 "Modeling Terrorist Groups as Dynamic Networks," INFORMS Conference 2006, Pittsburgh, PA.
- 11/2006 "Merchant Marine Analysis Using Dynamic Network Techniques," Naval Research Lab.
- 10/2006 "Dynamic Network Approach to the Assessment of Terrorist Groups and the Impact of Alternative Courses of Action, NATO Conference, Copenhagen, Denmark.
- 10/2006 "Multi-agent Systems and Networks," Modeling Social Dynamics Workshop, National Science Foundation, Washington D.C.
- 10/2006 "Comparative Models," Terrorism Cell Modeling Conference, Centra Tech, Washington D.C.
- 6/2006 "Understanding Taxpayer Behavior and Assessing Potential IRS Interventions using Multi-Agent Simulations," 2006 IRS Research Conference, Georgetown University Law Sch, Washington, DC.
- 6/2006 "Defeat Enemy Network" Roundtable, Pentagon ARL.
- 6/2006 "Modeling IED Activity," NSF Countering IEDs Workshop, Washington D.C.
- 5/2006 "Dynamic Network Analysis for the Warfighter," Network Science Workshop, Washington D.C.
- 5/2006 "Dynamic Network Analysis Applications in Counter-Terrorism," Emory University, Atlanta, GA.
- 4/2006 "Social Network Analysis (SNA), a powerful social science assessment tool," Pentagon.
- 4/2006 "Blockmaps: Advanced visualization technology for exploring large social networks," International Network for Social Network Analysis, Sunbelt XXVI, Vancouver, British Columbia, Canada.
- 4/2006 "Social Network Data, Given Error: Evidence for the Construction of Confidence Intervals Around Network Measures," International Network for Social Network Analysis, Sunbelt XXVI, Vancouver, British Columbia, Canada.
- 2/2006 "Dynamic Social Network Modeling," Cultural Preparation of the Environment at the Schafer Corporation; Arlington, VA.
- 4/2006 "Beyond Social Networks: A Dynamic Network Analysis Approach Applied to Counter Terrorism", Bruce H. Mayhew Memorial Lecture; Columbia, SC.
- 4/2006 "Dynamic Network Analysis: A Computational Approach to Counter Terrorism Analyses," UIC.
- 4/2006 "Visualizing and Assessing Strengths and Vulnerabilities in C3I Structures," CTAC 06, Helping Soldiers with Soldiers, University of Maryland, MD
- 3/2006 "Social Network Analysis in Counter-Insurgency;" Department of Behavioral Sciences & Leadership, USMA, West Point, NY.
- 2/2006 "Counter-terrorism applications of Dynamic Network Analysis," U.S. Army Research Laboratory-Human Research & Engineering Directorate, APG, MD.
- 2/2006 "Counter-terrorism applications of Dynamic Network Analysis," Seminar at Baltimore-HRDT, Military
- 11/2005 "Dynamic Network Analysis Applied to Counter Terrorism," Northwestern University
- 10/2005 "Dynamic and Large Scale Networks in Complex Settings," CAS Lecture, UIUC
- 10/2005 "Dynamic Network Analysis Applied to Counter Terrorism," Dept. of Computer Science, Distinguished Lecture series, UIUC
- 4/2005 "Destabilizing Terrorist Networks," Understanding Terrorist Network Organizations, Naval Post Graduate School, Monterey, CA
- 1/2005 "Comp. Modeling of Organizational Processes," National Academies Board Meeting, California.
- 1/2005 "Dynamic Network Analysis," Yahoo Meeting, San Francisco, CA.
- 1/2005 "Computational Modeling of Organizational Processes," Columbia School of Nursing, New York, NY.
- 9/2004 "Advances in Tools for Dynamic Network Analysis", MKIDS Conference, Ft. Meade, MD.
- 7/2004 "Dynamic Network Analysis", Center for Army Analysis
- 6/2004 "Estimating Vulnerabilities in Large Covert Networks", 2004 CCRTS Evidence Based Research Conference.

- 5/2004 "A Structural Basis for Assessing Organizational Performance and Vulnerability", NYU Stern School of Business, NY.
- 3/2004 "BioWar," Bio Security Center, Washington, DC.
- 1/2004 "An integrated approach to evaluating strategic interventions in terrorist networks", Global War on Terrorism Tool Conference, MORS, US Naval War College Newport, Rhode Island.
- 9/21/03 "Counter terrorism modeling," PACOM HI, Camp Smith, HI
- 5/2003 "Dynamic Network Analysis and Anti-terrorism", Distinguished Lecture Series, Office of Naval Research
- 4/2003 "Assessing Destabilization Strategies", AFRL/HE Speaker Series 2003, Dayton, OH
- 3/2003 "Inhibiting and Abetting Emergence in Complex Socio-Technical Systems" STIET Seminar, University of Michigan
- 1/2003 "Multi-Agent Modeling for Bio-Defense" Society for Simulation and Modeling," VWSIM, Orlando, FL.
- 1/2003 "BioWar" Sandia National Labs, Albuquerque, NM
- 1/2003 "Inhibiting Adaptation in Dynamic Networks" Sandia National Labs, Albuquerque, NM
- 12/2002 "Modeling Covert Networks" National Research Council Round Table on, Washington, DC.
- 11/2002 "Dynamic Network Analysis" National Research Council Workshop on Social Network Modeling and Analysis, Washington DC.
- 9/2002 "Cognitive Mapping" Academy of Management, Denver, CO.
- 9/2002 "Conflict Management" Academy of Management, Denver, CO.
- 3/2002 "Adaptive Teams: A Knowledge Network Approach" Naval Post Graduate School, Monterey, CA
- 3/2002 "Adaptive Organizations: A Knowledge Network Approach" Wharton, Philadelphia, PA
- 2/2002 "Encouraging Destabilization" SAIC, McLean VA
- 2/2002 "Controlling Network Change: Stopping Adaptation and Encouraging Destabilization" INSNA Sunbelt Social Network Conference, New Orleans LA
- 2/2002 "Adaptive Organizations: Linking Networks and Knowledge" MIT Economic Sociology Seminar
- 2/2002 "Designing Adaptive Technology Enhanced Teams" Information Sciences and Technology Distinguished Lecture Series, Penn State, College Station, PA
- 1/2002 "Destabilizing Networks" Society for Computer Simulation, VWSIM, San Antonio, TX
- 1/2002 "Destabilization of Networks Related to Terrorism" SAIC, McLean VA
- 1/2002 "Designing Adaptive Organizations" Rensselaer Polytechnic Institute. Troy, NY.
- 12/2001 "De/Stabilizing Dynamic Networks" The Cambridge Colloquium on Complexity and Social Networks (CCCSN), Harvard University
- 10/2001 "Computational Organization Science: A New Frontier" National Academy of Science, Sackler Colloquium on Adaptive Agents, Beckman Center, Irvine, CA
- 9/2001 "Impediments to Adaptation: A Social-knowledge Network Perspective" Defeating Emergence Workshop, SAIC, Washington DC
- 5/2001 "The CASOS Approach" Japanese Organizational Science Workshop, Tokyo Japan
- 3/2001 "Organizations as Complex Systems" Biocomplexity Conference, Beaufort, NC
- 2/2001 "Network Based Knowledge Management and Organizational Change", University of Arizona, Tucson, AZ.
- 2/2001 "Organizations as Intelligent Complex Adaptive Systems" Arizona State University
- 11/2000 "Computational Organizational Models" Tutorial, International Joint Conference IBERAMIA 2000, Sao Paulo Brazil
- 10/2000 "Organizational Change: A Knowledge Interaction Perspective" Marschak Colloquium, UCLA, Los Angeles, CA
- 9/2000 "Managing Change: An Interaction Knowledge Perspective", Conference on Complexity and Public Policy, Rand, Washington DC
- 8/2000 "Organizational Adaptation and ORGAHEAD", NATO Workshop, Naval Center for Applied Research in Artificial Intelligence, Ft. Meade, VA
- 8/2000 "The Value of Agent Based Models for Organizational Science", Academy of Management, Toronto, Canada
- 8/2000 "Quantitative Methods for Applying Complexity Theory to Organizations: Simulation Based Approaches", Academy of Management, Toronto, Canada
- 6/2000 "Team Analysis", Aptima, Boston MA
- 5/2000 "Constraint Based Adaptation in Organizations", NECSI, Nashua, NH

- 5/2000 “ORGAHEAD and architecture Design and Analysis”, Jacobia Meeting, George Mason University, Washington, DC.
- 11/1999 “Culture as Knowledge Level Dynamics” Toward a Sociology of Culture and Cognition, Sociology Conference, Rutgers University
- 10/1999 “Agents Plus: New directions in modeling social and organizational systems” Agent Simulation Workshop, University of Chicago
- 8/1999 American Sociological Association – Didactic Seminar – Computational Analysis
- 7/1999 “Opening up the Black Box: Organizational Design as Dynamic Networks” The Pew Center on Global Climate Change 1999 Workshop on the Economics and Integrated Assessment of Climate Change, Washington D.C.
- 5/1999 “Organizational Adaptation and the Digital Economy” Digital Economy Conference, Washington D.C.
- 5/1999 “Computational Models of Change in Institutions”, CIS-HDGC, CMU, Pittsburgh, PA
- 5/1999 “Organizations in the Next Millennium” GSIA 50<sup>th</sup> Anniversary, Pittsburgh, PA
- 4/1999 “On the Evolution of Social and Organizational Networks” Networks and Governance Series, Columbia University, New York, NY.
- 4/1999 “Computational Analysis of Teams.” Human Centered Design Environment Workshop, Wintergreen, VA.
- 2/1999 “Computational Organizational Science” NSF CSS workshop, CA
- 12/1998 “Entrepreneur Profiles.” Kaufman Foundation, Kansas City, Kansas
- 12/1998 “To Learn is Human, To Learn and Learn is Social.” Complex Systems Seminar, University of Michigan, Ann Arbor, MI.
- 12/1998 “Learning in an Uncertain Environment.” RPI, Troy, NY
- 10/1998 “A Computational Organization Theory Perspective on Modeling Organizations.” Human Factors Society Conference, Chicago, IL
- 6/1998 “Examining Adaptation and Flexibility in Command and Control Architectures.” Army After Next, Xerox Document University
- 6/1998 “Learning Within and Among Organizations”, Organizational Learning Conference, CMU, Pittsburgh, PA
- 5/1998 “Organizational Perspective.” NRC report at Computer Generated Forces conference, Orlando, FL.
- 4/1998 “Organizational Adaptation: Learning and the Changing Environment.” Anderson School, UCLA, Los Angeles, CA.
- 1/1998 “Socio-Cognitive Dynamics: Learning in an Uncertain Environment.” Dept. of Sociology, Cornell, University, Ithaca, NY.
- 1/1998 “The Risk of Adaptation.” Workshop on “The potential of computer simulation in the social sciences” University of Surrey, Guildford, UK.
- 11/1997 “Modeling Organizations” Workshop on Cognitive Models in the Design and Operation of Complex System, CHI Systems, Baltimore, MD
- 10/1997 “Dynamic Organizations: Organizational Adaptation in a Changing Environment,” INFORMS, Dallas, TX
- 8/1997 “Organizational Adaptation and Cognition,” Cognitive Science Conference, Stanford Univ.
- 8/1997 “The Knowledge Gap” Conference on Interactions-Based Models in the Social Sciences.” Santa Fe Institute, Santa Fe, NM.
- 6/1997 “Adaptive Organizations: The Clash of the Learning Levels” HKUST, Hong Kong
- 4/1997 “Organizational Adaptation,” University of Kansas, KA.
- 4/1997 “Computational Organization Theory,” NSF ITO Workshop
- 3/1997 “Measuring C2 Structure” A2C2 Workshop, Williamsburg, VA
- 10/1996 “Intelligent Agents and Strategic Adaptation,” ITESM, Monterrey Mexico
- 10/1996 “Modeling Intelligent Agents and Organizations,” NRC - Committee on Human Behavior and Military Simulation
- 10/1996 “Organizational Annealing,” Columbia University, NY.
- 8/1996 “Culture and Text Analysis,” American Sociological Association Mtgs. New York, NY.
- 8/1996 “Organizational Adaptation: A Simulated Annealing Perspective,” Santa Fe Institute, Santa Fe, NM.
- 5/1996 “Computational Organization Theory and Information Systems” INFORMS - CWC on Information Systems

- 2/1996 "Can Organizations Learn if They Restructure?" Cornell University, Johnson School of Business, NY.
- 2/1996 "Computer Aided Textual Analysis" Case Western University
- 1/1996 "The Basis of Socialness" Special Conference in the Social Sciences, Columbia University
- 1/1996 "Complexity and Organizations" Informs Winter Conference, Complexity Panel, Aspen, CO.
- 8/1995 "Computational Sociology," American Sociological Association Mtgs. Washington D.C.
- 4/1995 "Advances in Computational Organization Theory," INFORMS
- 4/1995 "The Evolution of Organizational Forms" UCLA, Los Angeles, CA
- 8/1994 "VDT and Organizational Models," SantaFe Institute - Workshop on Computational Organization Theory
- 11/1993 "Organizational Shifts," George Mason University, C3I, Washington D.C.
- 10/1993 "MECA Applications," Annenberg School for Communication, Philadelphia, PA
- 10/1993 "Strategies for Communication," Annenberg School for Communication, Philadelphia, PA with David Kaufer
- 9/1993 "Artificial Organizations" Cyert Conference, CMU, Pittsburgh, PA
- 6/1993 "Organizational Designs Suited to High Performance Under Stress" Symposium on Command and Control, Washington D.C.
- 6/1993 "Random Graphs: Three Applications" Classification Society of North America, Annual Meeting, Pittsburgh, PA.
- 5/1993 "Artificial Social Intelligence," Invited Panel. 1993 Conference on Computing for the Social Sciences, National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign
- 3/1993 "Next Time We Get Organized" Hurricane Conference Miami with Jack Harrald
- 12/1992 "MECA," International Congress on Computer Tools in the Social and Behavioral Sciences in Amsterdam, The Netherlands.
- 12/1992 "Organizational Learning," Gronighen, The Netherlands.
- 11/1992 "Comparing Approaches for Near Optimal Solutions in a Distributed Decision Making Environment," ORSA/TIMS, San Francisco, CA.
- 10/1992 "Training and Organizational Performance" Dept. of Sociology, University of Iowa, Iowa City, IA.
- 3/1992 "Co-evolution of Self and Society," Heinz Carnegie Mellon University, Pittsburgh, PA.
- 3/1992 "Simulating Society," University of Pittsburgh, Pittsburgh, PA.
- 3/1992 "Society, Culture and Technology: Toward an Integrated Theory of the Role of Communication in Social Change," Taft Lecture Series, University of Cincinnati, Cincinnati, Ohio.
- 3/1992 "Emergence of Scientific Fields," Sociology Colloquium, University of Cincinnati, Cincinnati, Ohio.
- 11/1991 "Analysis of Qualitative Data," Society for the Scientific Study of Religion, Panel on Methods, Pittsburgh, PA.
- 10/1991 "Getting the Job Done," Clarkson University. Potsdam, NY. with Sara Kiesler
- 8/1991 "Coevolution of Structure and Culture: A Socio-Cognitive Approach," Conference on Small Group Behavior. Cincinnati, OH.
- 8/1991 "Examining Socio-Cultural Change Through Language," New Hampshire 1991 Theory Survey — Boundaries and Units. Enfield, NH.
- 5/1991 "Organizational Design and Performance," Conference on Mathematical Organizations Theory. Nashville, TN.
- 2/1991 "Social and Cultural Evolution: A Cognitive Basis for Social Change," Northwestern University. Chicago, IL.
- 1/1991 "Coordination for Effective Crisis Performance When Training Matters," Rensselaer Polytechnic Institute. Troy, NY.
- 9/1990 "The Organizational Structures Most Responsive to Crises," National Research Council Research Workshop on Organizational Issues in US Nuclear Policy. Oakland, CA.
- 8/1990 "Computer Analysis of Qualitative Data," Didactic Seminar. American Sociological Association Meetings. Washington D.C.
- 7/1990 "Multi-Agent Soar," Special conference on AI and Organization Theory. CCSOM. Amsterdam, The Netherlands.
- 3/1990 "Coordinating for Success: An Examination of Organizational Learning and Performance," GSIA Carnegie Mellon University, Pittsburgh, PA.

K.M. Carley September 14, 2017

- 8/1989 "Computer Analysis of Qualitative Data," Didactic Seminar. American Sociological Association Meetings. San Francisco, CA.
- 6/1989 "Organizational Learning and Personnel Turnover." NSF sponsored conference on Organizational Learning: Carnegie Mellon University, Pittsburgh, PA.
- 5/1989 "Group Stability: A Socio-Cognitive Approach," Social Relations Dept. University of California Irvine, Irvine, CA.
- 5/1989 "Simulation and Social Theory," Sociology Dept. University of California Riverside, Riverside, CA.
- 5/1989 "Predicting Interaction Using Simulation: The Tailor Shop Case," USCB Social Network Seminar. University of California Santa Barbara, Santa Barbara, CA.
- 4/1989 "The Impact of Electronic Mail on the Scientific Community: The Diffusion of Soar," McLuhan Program in Culture and Technology and the Faculty of Library and Information Science seminar series University of Toronto, Toronto, Canada.
- 4/1988 "The Social Sciences at CMU," HandSS Program for Margaret Morrison Alumnae.
- 2/1988 "Electronic Mail and the Diffusion of Scientific Information," Xerox Parc. Palo Alto, CA.
- 12/1987 "Crisis Management and the Garbage Can Model of Organizational Choice," Red Cross and Washington Operations Research Management Science Council. MITRE Corporation, Washington D.C.
- 11/1987 "Constructuralism: Relating Social to Cognitive Structure," Sociology Dept. Colloquium. Cornell University. Ithaca, NY.
- 5/1987 "Producing Social Stability and Consensus," Sociology Dept. Colloquium. University of California Los Angeles. Los Angeles, CA.
- 5/1987 "Constructuralism: Combining Social and Cognitive Networks," Social Relations Dept. Colloquium. University of California Irvine. Irvine, CA.
- 4/1987 "Producing Social Stability," Sociology Dept. Colloquium. University of South Carolina. Columbia, SC.
- 11/1986 National Research Council, Committee on Human Factors, Workshop on Distributed Decision Making. Washington D.C.
- 3/1986 "Separating the Effect of Structure and Interaction," Stanford Business School. Stanford, CA.
- 5/1985 "Social Groups and Computer Mail," Network Seminar. Harvard University. Cambridge, MA.
- 1/1984 "Garbage Can Efficiency - A Simulation," Joint Naval Workshop on Organizations. Monterey, CA.
- 4/1984 "Relating Social Structure to Cognitive Conceptions," Social Networks Group. Harvard University. Cambridge, MA.
- 6/1977 "The Burro Problem in the Grand Canyon, A System Dynamics Model," National Park Service, Department of the Interior. Grand Canyon National Park, AZ.
- 10/1976 "CASCON: A Users Guide," MIT, Political Science. Cambridge, MA.
- 10/1975 "CASCON: A Users Guide," MIT, Political Science. Cambridge, MA.

## CONFERENCE PRESENTATIONS

- 2017 NASN
- 2015 HotSOS 2015, Champaign-Urbana IL
- 2014, 2015 Political Networks Conference
- 2014 Cyber Security Workshop, Boston MA
- 2013, 15, 16 ASONAM
- 2013 SAMSI
- 2013 World Summit on Big Data and Organization Design, Paris Fr.
- 2013 Social Computing and Crisis in the New Information Age, Brussels Be.
- 2013 PACOM S&T
- 2012 UBICOM
- 2012 GEOINT
- 2012 Networks in a Global World Conference
- 2012 AAAS
- 2011 HSCB Open House
- 2011 Social Media Symposium, Ottawa, Canada
- 2011 Focus2011
- 2011 International Conference on Software Engineering



K.M. Carley September 14, 2017

2010 IRS Research Conference  
2010 Focus2010  
2009 ONR Merchant Marine Vessel Workshop  
2009 Informs  
2008 Second World Conference on Social Simulation  
2008 National HIDTA Conference  
2007 AMIA 2007 Annual Symposium  
2007 Huntsville Simulation Conference (HSC)  
2007 AAMAS (Autonomous Agents and Multiagent Systems)  
2007 European Accounting Association Conference, Lisbon  
2007-09 USMA Network Science  
2015,16, 17 SBP-BRIMS  
2007,11, 12, 13 BRIMS  
2006,2008 MORS  
2006, 2007 STEP  
2005,2007-09,12-13 AFOSR/Cultural Modeling  
2005, 2008 SIAM  
2003,2004 MKIDS Conference  
2004,2005 TACC-DARPA/IXO Workshop  
2003-2004,07 NAACSOS  
2003 IMA Conference  
2003 ORGSIM Workshop  
2003 8<sup>th</sup> International Command Symposium  
2003 Institute for Mathematics Workshop  
2002 Arrowhead  
2001 NSF Design, Service and Manufacturing Grantees and Research Conference  
2000 IBERAMIA  
2000-2003 CASOS Conference  
1999,2000 PITA Symposium  
1999,00,02 Agents  
1998 Human Factors Society  
1998 AAI Fall Symposium Series  
1986,96,97,99-03,05,09,10,14 Academy of Management  
1996 Informs Winter Conference  
1996-05 A2C2 meetings  
1993-04,07 International Symposium on Command & Control Research and Technology (CCRTS) (was C3I)  
1997 Cognitive Science  
1985,87-01 American Sociological Association Meeting  
1985-94,96-97,99-00,02-17 INSNA Sunbelt International Social Network Conference  
1995 Association for Information Systems  
1990 Hawaii International Conference on System Sciences  
1990 Public Choice Meetings  
1990 American Anthropological Association Meetings  
1989-1990 4S  
1989 International Conf. on Industrial and Crisis Management  
1989 Midwestern Sociological Society Meetings  
1987-1988 Eastern Sociological Association Meeting  
1984,88-89,91-94 ORSA/TIMS  
1995-97,06-09 INFORMS  
1986-90, 1992 Soar Workshop  
1985 International Conf. on Artificial Intelligence and Learning  
1979 Social Psychology Conference  
1990-2000 Computational and Mathematical Organization Theory Workshop

#### **SHORT COURSES AND EXECUTIVE EDUCATION**

7/2017 “Dynamic Network Analysis for Intelligence & Security,” Institute for Strategic Analysis,  
Washington, DC

- 7/2017 "DNA & ORA," North American Social Network Meeting, Washington, DC
- 7/2017 "Social Influence and Groups in Twitter," SBP-BRiMS, Washington, DC
- 7/2017 "Geo-Temporal Network Visualization," SBP-BRiMS, Washington, DC
- 6/2017 "DNA, Networks and Simulation," CASOS Summer Institute
- 5/2017 "DNA & ORA," INSNA Sunbelt XXXVII, Beijing, China
- 4/2017 "Social Media Analytics Using ORA," STRATCOM Center of Excellence, Riga, Latvia
- 2/2017 "Dynamic Network Analytics for Cyber Security," Army War College
- 10/2016 "Network Science and Social Network Reasoning," Executive Short Course on Decision Science, Risk and Network Analysis, ISA, Washington DC
- 9/2016 "Twitter System for Tsunami Warning & Demo," IOWAVE 2016 Conference, Padang Indonesia
- 8/2016 "Social Media Analytics in ORA," Ft.McNair, Washington DC
- 6/2016 "Identifying Covert or Hidden Groups in Twitter," SBP-BRiMS 2016, Washington DC
- 6/2016 "Network Analytics in ORA," SBP-BRiMS 2016, Washington DC
- 6/2016 "DNA, Networks and Simulation," CASOS Summer Institute
- 5/2016 "Network Science and Social Network Reasoning," Executive Short Course on Decision Science, Risk and Network Analysis, ISA, Washington DC
- 4/2016 "DNA & ORA," INSNA Sunbelt XXXVI, Newport Beach, USA
- 8/2015 "DNA & Disaster Management," ITB PEER students, Padang Indonesia
- 8/2015 "Bot Detection in Social Media: Networks, Behavior, and Evaluation," ASONAM 2015
- 7/2015 "DNA, Networks and Simulation," CASOS Summer Institute
- 6/2015 "Dynamic-network analysis and \*ORA", INSNA Sunbelt XXXV, Brighton UK
- 4/2015 "Social Network Analysis for Science of Security," HotSOS, Urbana-Champaign, IL
- 4/2015 "DNA, Networks and Simulation," SBP-BRiMS 2015, Washington DC
- 7/2014 "Dynamic-network analysis", CMU Executive Education
- 6/2014 "DNA, Networks and Simulation," CASOS Summer Institute
- 8/2013 "Network Analytics," ASONAM, Niagra Falls, NY, USA
- 7/2013 "AutoMap and ORA," Training Course, Creighton University, Omaha Nebraska
- 6/2013 "DNA, Networks and Simulation," CASOS Summer Institute
- 6/2012 "DNA, Networks and Simulation," CASOS Summer Institute
- 5/2012 "Dynamic Network Analysis," Master's Course, Vrije Universiteit
- 3/2012 "Dynamic Network Analysis," 2012 International Conference on Social computing, Behavioral - Cultural, Modeling and Prediction (SBP12), Hyattsville, MD
- 3/2012 "Relational Text Analysis and Network Analysis: From AutoMap to ORA," INSNA Sunbelt XXXII
- 3/2012 "Dynamic Network Analysis (DNA) and \*ORA," INSNA Sunbelt XXXII
- 3/2012 "Network Dynamics, Simulation and Construct," INSNA Sunbelt XXXII
- 10/2011 "Network Analysis." USMA, Westpoint, NY
- 7/2011 "Dynamic Network Analysis," Lipari Summer School, Lipari Italy
- 6/2011 "DNA, Networks and Simulation," CASOS Summer Institute
- 6/2010 "Dynamic Network Analysis," ISSH, New York, NY
- 6/2010 "DNA, Networks and Simulation," CASOS Summer Institute
- 11/2009 "DNA and SORASCS," Pacific Science and Engineering, Pittsburgh, PA
- 10/2009 "Dynamic Network Analysis," Tampa, FL
- 9/2009 "Dynamic Network Analysis," Ft. Monmouth, NJ
- 7/2009 "Socio-technical systems as networks: Representation and analysis," DRDC Center for Security Science, Ottawa,CA
- 6/2009 "Networks and Simulation," CASOS Summer Institute
- 6/2008 "Networks and Simulation," CASOS Summer Institute
- 5/2008 "Dynamic Network Analysis," USMA
- 6/2007 "Networks and Simulation," CASOS Summer Institute
- 4/2007 "Dynamic Network Analysis," CIA
- 4/2007 "Dynamic Network Analysis," NDIC
- 3/2007 "Dynamic Network Analysis," CIA
- 8/2006 "Dynamic Network Analysis," Army Research Labs
- 6/2006 "Networks and Simulation," CASOS Summer Institute
- 9/2005 "Dynamic Network Analysis," Aerospace Corporation
- 6/2005 "Networks and Simulation," CASOS Summer Institute

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| 11/2004 | “Organizational Security,” University of Pittsburgh  |
| 6/2004  | “Networks and Simulation,” CASOS Summer Institute  |
| 1/2003  | “Dynamic Network Analysis,” Sandia National Labs   |
| 6/2003  | “Networks and Simulation,” CASOS Summer Institute  |
| 5/2002  | “E-government: A Security Perspective,” Korean Executive IT Policy Program                                 |
| 6/2002  | “Networks and Simulation,” CASOS Summer Institute  |
| 11/2001 | “Computational Modeling for Organizations,” CIO Institute  |
| 6/2001  | “Networks and Simulation,” CASOS Summer Institute  |
| 11/2000 | “Computational Organizational Models,” Tutorial, Int. Joint Conference IBERAMIA 2000, Sao Paulo Brazil     |
| 7/2000  | “Acquiring Tacit Knowledge,” CIO Institute   |
| 6/2000  | “Networks and Simulation,” CASOS Summer Institute  |
| 4/2000  | “Computational Social Science,” INSNA Sunbelt Meeting  |
| 4/2000  | “Networks and Information Security,” Merrill Lynch   |
| 4/2000  | “Dynamic Organizations: Organizational Adaptation in a Changing Environment” CIO Institute                 |
| 8/1999  | “Computational Social Science,” Didactic Seminar. American Sociological Association. San Francisco, CA.    |
| 6/1999  | “Networks and Simulation,” CASOS Summer Institute  |
| 1/1997  | “Network Based Text Analysis,” Universite' Leonardo DaVinci  |
| 2/1996  | “Computer Aided Textual Analysis” Case Western University  |
| 8/1990  | “Computer Analysis of Qualitative Data,” Didactic Seminar. American Sociological Assoc. Washington D.C.    |
| 8/1989  | “Computer Analysis of Qualitative Data,” Didactic Seminar. American Sociological Assoc. San Francisco, CA. |

### **EDITORIAL ACTIVITIES**

|           |  |
|-----------|--|
| 2013-2017 | IEEE Transactions on Network Science and Engineering — steering committee  |
| 2014-     | IEEE Transactions on Computational Social Systems — Associate Editor   |
| 2010-     | Social Network Analysis and Mining — Editorial Board   |
| 1999-     | Field Methods — Editorial Board  |
| 1997-     | Journal of Artificial Societies and Social Simulation — Editorial Board  |
| 1995-     | Computational and Mathematical Organization Theory — Founding Co-Editor  |
| 1999-2007 | Journal of Social Structure — Editorial Board  |
| 1998-2000 | Journal of Cognitive Systems — Editorial Board   |
| 1997-1999 | Structural Analysis: A Journal of Theory and Applied Research — Editorial Board  |
| 1996-1999 | Organization Science — Special Issue on Complexity — Guest Co-Editor   |
| 1995-1999 | Management Science — Associate Editor  |
| 1995-1998 | Sociological Methodology — Editorial Board   |
| 1994-1996 | The Journal of Mathematical Sociology — Editorial Board  |
| 1994-1997 | International Journal of Intelligent Systems in Accounting, Finance and Management — Editorial Board   |
| 1994-1998 | Sociological Methods and Research — Editorial Board  |
| 1994-1996 | Sociological Methods and Research — Guest Editor for special issue on AI and Sociology   |
| 1994-1996 | The Journal of Mathematical Sociology — Guest Editor, special issue on Computational Org. Theory   |
| 1993      | International Journal of Intelligent Systems in Accounting, Finance and Management — Guest Co-Editor for special issue on Mathematical and Computational Models of Organizations: Models and Characteristics of Agent Behavior |
| 1989-1994 | Information and Decision Technologies — Associate Editor   |

### **REVIEW ACTIVITIES**

|   |                               |
|---|-------------------------------|
| Academy of Management Review                        | Air Force                     |
| Accounting, Management and Information Technologies | American Journal of Sociology |
| Administrative Science Quarterly                    | American Sociological Review  |
|   | American Sociologist          |

Applied Behavioral Science Review  
Army Research Office  
BRiMS  
Computational & Mathematical Organization Theory  
Idaho Science Board  
IEEE Engineering Management  
IEEE Systems Man and Cybernetics  
IEEE Transactions on Computational Social Systems  
Industrial and Corporate Change  
Information and Decision Technologies  
International Journal of Intelligent Systems in  
Accounting, Finance and Management  
Journal of Artificial Societies and Social Simulation  
Journal of Social Structure  
Management Science  
NATO  
Nature  
NSF  
Office of Naval Research  
Operations Research

Organization Science  
Organizational Behavior and Human Decision  
Processes  
PNAS  
Poetics  
SBP  
SBP-BRiMS  
Science  
Social Forces  
Social Networks  
Social Psychology Quarterly  
Sociological Methodology  
Sociological Methods and Research  
Sociological Perspectives  
Stanford University Internal Grants  
Structural Analysis: A Journal of Theory and Applied  
Research  
Technology Studies  
The Journal of Mathematical Sociology

## PROFESSIONAL ACTIVITIES

2017 Trident Joust 2017 Participant  
2017 CCC Cyber Security Workshop Member  
2017- NRC Panel Member, Decadel Study  
2017-2018 SBP-BRiMS 2018 Conference Chair  
2016-2017 SBP-BRiMS 2017 Conference Chair  
2015-2016 SBP-BRiMS 2016 Conference Chair  
2014-2016 NRC Panel Member, "Models of the World"  
2013-2016 NRC Panel member, ARL review  
2013-2017 Steering Committee and Advisory board IEEE Network Sciences Group  
2012-2014 DHS Homeland Security Science and Technology Advisory Committee  
2012-2013 NRC Panel member, "Math Digital Library"  
2010-2013 NRC Panel member, "NGA Workforce Evaluation"  
2010-2013 NRC Panel member, "Massive Data Analysis"  
2008-2009 NRC Committee for "Applications of Social Network Analysis for Building Community Disaster Resilience: A Workshop"  
2007-2008 Task Force Member for Defense Science Board: Human Behavioral Modeling  
2007-2008 GIST, Stratcom, Task Force Member  
2005-2006 NRC Panel member; Modeling and Simulation for Defense Transformation  
2005-2006 NRC Panel member; Organizational Models: From Individuals to Societies  
2005-2006 NRC Panel member; Defense Modeling and Simulation  
2002-2004 Founding President of the North American Association of Computational Social and Organizational Systems  
2002 Panel member for SAIC group on terrorism, Project MacDuff.  
2001 Panel member for Threat Anticipation Workshop, DTRA Advanced Systems and Concepts Office  
2001 Panel member for Defeating Emergence Workshop, SAIC  
2001 NSF Workshop on Converging Technology (NBIC) for Improving Human Performance  
1999-2005 Organizer of Annual CASOS Summer Institute  
1999-2002 Annual Conference Co-organizer of CASOS Conference (formerly CMOT)  
1999-2000 ICMAS Program Committee for ICMAS 2000  
1999-2000 President of the Mathematical Sociology Section of the American Sociological Association  
1998-1999 President Elect of the Mathematical Sociology Section of the American Sociological Association  
1997-1998 Panel member for NAS/NRC special meeting on Population  
1996-1998 Member NSF Advisory Panel for Sociology

K.M. Carley September 14, 2017

1996-1998 Member of the NAS/NRC Committee on Human Behavior and Military Simulation  
1996-1997 NSF ITO Steering Committee  
1996 Workshop Organizer and Presenter — CCOR Workshop on Modeling Organizations  
1996 Co-organizer Festschrift for Harrison White  
1990-2000 Co-organizer of Social Network Seminar Series (3 Rivers Network), Carnegie Mellon University and University of Pittsburgh  
1990-2000 Co-organizer of Bi-Weekly Groups and Organizations Seminar (GO), Carnegie Mellon University and University of Pittsburgh  
1993-1999 Conference Co-Organizer — Annual Computational and Mathematical Organizations Theory Workshop (INFORMS [ORSA/TIMS])  
1991-1993 Conference Co-Organizer — Annual Mathematical Organizations Theory Workshop (ORSA/TIMS)  
1995-1996 Member of the Nominations Committee for the American Sociological Association Meeting  
1994-1995 Member of the Membership Committee for the Occupations and Organizations Section for the American Sociological Association  
1994-1995 President of the Sociology and Computers Section of the American Sociological Association  
1993-1994 President elect of the Sociology and Computers Section of the American Sociological Association  
1993-1994 Board member for the AAAS/ABA National Conference  
1993-1994 Newsletter Editor for ORSA/TIMS College on organizations  
1993-1994 Session Organizer — Social Cognition and Networks — International Network for Social Network Analysis  
1993-1993 Conference Co-Organizer — Textual Analysis Workshop  
1991-1992 Conference Co-Organizer — Advances in Social Theory  
1991-1992 Conference Organizer — Group Processes Conference (ASA)  
1991-1992 Session Co-Organizer — Scientific Networks — Sunbelt International Social Network Conference  
1991 Steering Committee for “International Consortium on Network Research” — CMU Representative  
1990-1991 Conference Organization Committee — New Hampshire 1991 Theory Survey — Boundaries and Units  
2/1991 Session Chair — Networks in Science — Sunbelt International Social Network Conference  
1990-1991 Organizer — Section on Micro-computing: Computer-Assisted Research — American Sociological Association Meeting  
9/1990 National Research Council, Committee on Contributions of Behavioral and Social Science to the Prevention of Nuclear War. Workshop on Organizational Issues in U.S. Nuclear Forces, Oakland, CA.  
1989-1990 Organizer — Regular Session. Social Networks: Advances in Methodology — American Sociological Association Meeting  
1989-1990 Organizer — Regular Session. Social Networks: Network Dynamics and Organizations — American Sociological Association Meeting  
1989-1990 Program Committee — Microcomputing Section — American Sociological Association  
1986 National Research Council, Committee on Human Factors, Workshop on Distributed Decision Making. Challenger. Washington D.C.  
7/1989-6/1990 Board of Trustees of the Operations Research Society of America/Social Sciences Applications Special Interest Group

### PROFESSIONAL MEMBERSHIPS

2006- ACM  
2006- IEEE  
2003-2010 North American Association for Computational Social and Organizational Systems (NAACSOS)  
1998- Academy of Management  
1994- INFORMS [ORSA/TIMS]  
1993- AAAS  
1989-1990 ORSA Social Sciences Applications — Special Interest Group  
1988- Sigma XI  
1987-1990 Eastern Sociological Association  
1985- International Network for Social Networks Analysis  
1980- American Sociological Association

## **THESES SUPERVISION**

### ***CARNEGIE MELLON UNIVERSITY: PH.D. THESIS — ADVISOR***

6/2016-5/2017 Matthew Benigni (ISR)  
12/2015-12/2016 Wei Wei (ISR)  
5/2015-8/2016 Kenneth Joseph (ISR)  
2/2015- Geoffrey Morgan (ISR)  
12/2014-5/2016 William Frankenstein (EPP)  
4/2014-5/2015 Ghita Mezzour (ECE & ISR) with L. Richard Carley  
9/2013- Peter Landwehr (ISR)  
1/2013-5/2015 Michael Lanham (ISR)  
12/2011-1/2013 Eric Daimler (CMU-self defined) with Jim Morris  
10/2012-8/2013 Miray Kas (ECE) with L. Richard Carley  
8/2010- Brian Hirshman (ISR)  
7/2010-12/2012 Jana Diesner (ISR)  
6/2010-5/2014 Rob Behrman (EPP)  
9/2009-1/2012 George Davis (ISR)  
3/2009-5/2014 Terrill Frantz (ISR)  
3/2008-5/2012 Marcus Louie (EPP)  
2/2008-5/2009 Victoria Yuhás-Hill (EPP)  
3/2008-5/2009 Patrick Wagstrom (ISR and EPP)  
3/2008-5/2009 Ian McCulloh (ISR)  
11/2007-8/2008 Il-Chul Moon (ISR)  
1/2007-1/2008 Marcelo Cataldo (ISR) with Jim Herbsleb  
5/2006-5/2007 Mike Ashworth (ISRI)  
1/2006-1/2007 Edoardo M. Airoidi (ISRI) with Steve Feinberg  
6/2005-9/2006 Craig Schreiber (ISRI)  
8/2004-10/2006 Alex Yahja (ISRI)  
10/2004-6/2005 John Graham (ISRI)  
7/2004-6/2005 Maksim Tsvetovat (ISRI)  
1/2000-5/2008 Ju-Sung Lee (Social and Decision Sciences)  
8/2001-8/2003 Li-Chiou Chen (Engineering and Public Policy)  
1/2000-5/2003 Eleanor Lewis (Social and Decision Sciences) NSF Dissertation Award, Simon Award  
6/2000-5/2002 Carter Butts (Social and Decision Sciences) NSF Dissertation Award, Simon Award  
1/2000-8/2001 Bonnie Brinton Anderson (H.J. Heinz III School of Public Policy and Management)  
9/1997-12/2000 Lille Caroline Springall-Gautier (Graduate School of Industrial Administration)  
10/1998-5/1999 David Kaplan (H.J. Heinz III School of Public Policy and Management)  
2/1997-12/1999 Tiziana Casciaro (Social and Decision Sciences)  
5/1996- 5/1999 Brian Butler (Graduate School of Industrial Administration)  
9/1995-12/1998 Vanessa Hill (Graduate School of Industrial Administration)  
6/1995- 5/1998 Diana Gant (Social and Decision Sciences)  
5/1997-5/1998 Sumit Chowdhury (H.J. Heinz III School of Public Policy and Management)  
1/1995-12/1997 Dean Behrens (Social and Decision Sciences) NSF Dissertation Award  
9/1990-5/1994 Zhiang Lin (H.J. Heinz III School of Public Policy and Management)

### ***CARNEGIE MELLON UNIVERSITY: PH.D. THESIS — COMMITTEE MEMBER***

1/2012-1/2013 Lyndsey Schutte (Bio)  
9/2008 Yun Shang Chiou (Architecture)  
4/2010-12/2010 Xiaoqian Jiang (ISR)  
1/2005-5/2007 Carol Frieze (SCS)  
1/2005-5/2006 Brad Malin (ISRI)  
5/1998-5/2001 Neil Strachan (Engineering and Public Policy)  
8/1996-6/2000 Rangaraj Ramanujam (Graduate School of Industrial Administration)  
12/1997-5/1999 Hisashi Yamagata (H.J. Heinz III School of Public Policy and Management)  
5/1997-10/1998 Dan Teitelbaum (Engineering and Public Policy)  
11/1997 Kung-Jen Tu (School of Architecture)

K.M. Carley September 14, 2017

9/1994-12/1996 Faison Gibson (Graduate School of Industrial Administration)  
9/1994-5/1995 William Wescott (Engineering and Public Policy)  
8/1989-5/1990 Michael Palmquist (English)  
5/1989-12/1990 Bing Wang (H.J. Heinz III School of Public Policy and Management)  
5/1988-5/1990 Paul Zahray (Engineering and Public Policy)  
5/1986-5/1989 Stuart Shapiro (History)

***NON CMU: PH.D. THESIS — COMMITTEE MEMBER***

12/2016-7/2017 Fred Morstatter (Arizona State University)  
6/2014-5/2015 Angela Burth (University of Phoenix)  
6/2014-6/2015 Shauhrat S. Chopra (University of Pittsburgh)  
6/2013- Alla G. Khadka (University of Pittsburgh)  
1/2011-8/2012 Luke Gerdes (University of Pittsburgh)  
3/2009-1/2011 Ben Nye (University of Pennsylvania)  
6/2010- Nadazda Ivanova (Penn State University)  
5/2007-12/2009 Tom Haase (University of Pittsburgh, GSPIA)  
5/2008-3/2009 Aliaksandr Birukou (Trento University, Italy)  
8/2007-12/2008 Alexei Sharpanskykh (Vrije Universiteit Amsterdam, Artificial Intelligence, Amsterdam)  
5/2005-5/2006 Jerry Kane (Emory University, Goizueta Business School)  
8/2006-8/2007 Hyung Sam Park (University of Pittsburgh, Sociology)  
9/2006-6/2007 Mark Hoogendoorn (Vrije Universiteit, Artificial Intelligence, Amsterdam)  
9/2004-12/2006 Charles Lebedz (Boston College, Business)  
5/2005-5/2006 Tom Clancy (The University of Iowa College of Nursing)  
9/2002-1/2004 James Hazy (The George Washington University)  
9/1998-5/2002 Casey Rowe (University of Pittsburgh, Accounting - Katz,)  
11/2003 Kayo Fujimoto (University of Pittsburgh, Sociology)  
10/1998-8/2001 Kari (Kelton) Chopra (RPI, Decision Sciences and Engineering Systems)  
9/1999-8/2000 Sucheta Nadkarni (University of Kansas, Business)  
4/1998-5/1999 Junalux Chalidabhongse (Stanford Univ., Engineering-Economic Systems and Operations Research)  
11/1993-5/1996 Manju Ahuja (University of Pittsburgh, Joseph M. Katz Graduate School of Business)  
8/1989-8/1991 Neda Saburi (American University, Washington D.C., Sociology)

***CARNEGIE MELLON UNIVERSITY: PRE-PH.D. THESIS SUPERVISION***

8/2017- David Beskow (ISR)  
8/2017- Iain Cruickshank (ISR)  
8/2017- Thomas Magelinski (ISR)  
8/2016- Ramon Valla Cox (ISR)  
10/2015- Sumeet Kumar (ECE/ISR)  
8/2015- Binxuan Huang (ISR)  
8/2015- Geoff Dobson (ISR/SEI)  
6/2015-9/2015 Jonathan Lakey (Heinz)  
9/2014-6/2016 Matthew Benigni (ISR)  
9/2014-12/2015 Tanmay Sinha (LTI)  
9/2011-12/2014 William Frankenstein (EPP)  
9/2011-5/2013 Nelson Vega-Moya (ISR)  
9/2011-8/2013 Dennis Chung (ISR)  
1/2011-4/2014 Ghita Mezzour (ISR)  
9/2010-12/2015 Wei Wei (ISR)  
9/2010-5/2015 Kenneth Joseph (ISR)  
9/2009-2/2015 Geoffrey Morgan (ISR)  
9/2007-9/2013 Peter Landwehr (ISR)  
9/2007-9/2012 Jamie Olson (ISR)

***CARNEGIE MELLON UNIVERSITY: MASTERS THESES — ADVISOR***

4/2017 Adam Tse (INI)

K.M. Carley September 14, 2017

4/2012 Ang Li (INI)  
9/2011-8/2012 Junier Oliva (ECE)  
9/1998-5/2000 Marcelo Cataldo (INI)

***CARNEGIE MELLON UNIVERSITY: MASTERS – NO THESIS***

11/2016- John Villarraga (Chemical Engineering)  
8/2016- Adam Tse (MITS)  
8/2016- Shivam Gupta (MITS)  
12/2015 Tanmay Sinha (LTI)  
12/2013 Jesse St. Charles (ISR)  
5/2012 Kenneth Joseph (ISR)  
5/2012 Wei Wei (ISR)  
5/2012 Michael Lanham (ISR)  
9/2009-5/2011 Yi Chang (Greg) (LTI)  
8/2010 Virginia Bedford (ISR)  
5/2010 Peter Landwehr (ISR)  
5/2009 Ian McCulloh (ISR)  
12/2007 Jana Diesner (ISR)  
5/2008 Terrill Frantz (ISR)  
5/2008 Brian Hirshman (ISR)  
5/2007 George Davis (ISR)  
5/2006 Michael Ashworth (ISR)  
5/2006 Marcelo Cataldo (ISR)  
5/2006 Il-Chul Moon (ISR)  
5/2006 Patrick Wagstrom (EPP)

***CARNEGIE MELLON UNIVERSITY: UNDERGRADUATE HONORS THESES — ADVISOR***

11/2016- Joseph Gibli — Refugee Networks (topic) (Statistics)  
6/1998-5/1999 Don Hoag — Organizational Change and Personnel Mobility (topic) (Heinz)  
8/1993-5/1994 Seth Halvaksz — Organizations of Soar Agents (topic) (SDS)  
6/1992-12/1992 Constantine Papageorgiou — Radar Soar (topic) (CS)  
5/1990-5/1991 Nicholas Louitt — Software Engineering Teams (topic) (SDS)  
5/1990-5/1991 Thomas Dale — Robots in Science Fiction (topic) (SDS)  
9/1987-5/1988 Eric Gold — Diffusion and Organizational Structure (SDS)  
9/1987-5/1988 Shep Bostin — CompuSpace - Expert System for Emergency Room Planning (SDS)  
9/1986-5/1987 Joseph Stone — EXNET Expert system for entering societal description (SDS)  
9/1986-5/1987 Frank Venturella — Cognitive Structure in Political Debates (SDS)  
9/1985-5/1986 Mary Gaylord — Structure of programming and technical writing. — Unfinished (SDS)  
9/1985-5/1986 Jennifer Kubitz — Transition to Andrew and education at CMU (topic) (SDS)  
9/1985-5/1986 Joanne Power — Knowledge Acquisition and Social Interaction Patterns (SDS)

***NON CMU: PRE-PH.D. THESIS SUPERVISION***

8/2016-7/2017 Felicia Natali — LARC, Singapore  
8/2015-7/2016 Larry Lin — LARC, Singapore  
1/2001-3/2001 Jana Diesner — Germany  
1/2000-8/2000 Luigi Proserpio — Italy  
8/1994-12/1997 Harko Verhagen (The Netherlands) Equivalent of Masters Thesis.  
9/1982-6/1983 Scott Sangster — Proposition 2 and 1/2. Harvard University (Advisor)  
9/1983-6/1984 Pam Puzinas — Modeling the impact of voter registration on voting behavior. Harvard University (Reader)  
9/1981-6/1982 Jeff Leit — The effects of TV viewing. Harvard University (Reader)

***PH.D. ADVISORS***

Harrison White (Co-Chair) Columbia University



K.M. Carley September 14, 2017

Sheldon White (Co-Chair) Deceased  
James Davis University of Chicago  
John Padgett University of Chicago  
Roger Brown Deceased

### **NON CMU COLLABORATORS (LAST 4 YEARS)**

Jun Ai, Northeastern Univ. China;  
Nitin Agarwahl, University of Arkansas, Little Rock  
Gregory L. Alexander, University of Missouri;  
Xue Bai, Harvard;  
Michael Bales, Columbia;  
Laszlo Barabasi, Northeastern;  
Virginia Bedford, ASCS;  
Marge Benham-Hutchins, Univ. of Texas-Austin;  
Michael Bigrigg, University of Pittsburgh;  
Mia Bloom, Georgia State University;  
Kurt Braddock, PSU;  
Mathew Brashears, University of South Carolina  
Barbara Brewer, University of Arizona;  
Michael Caldwell, Columbia;  
Guido Cervone, PSU;  
Claudio Cioffi, GMU;  
Louise Comfort, University of Pittsburgh;  
Noshir Contractor, Northwestern;  
Peter Chew, Galisteo  
Armin Eberlein, University of Regina;  
Judith Effken, University of Arizona;  
Robert Elder, George Mason University;  
Terrill Frantz, Peking University;  
Lee Freitag, Woods Hole;  
Shih-Fen Cheng, Singapore Management University;  
Kristine Gebbie, Columbia;  
Viswanath Gunturi, University of Minnesota;  
Brian R. Hirshman, UCSD;  
Jon Horgan, PSU;  
Cale Home, PSU;  
James Howison, Industry;  
Bin Hu, China;  
Bizhan Jamshidnezhad, Australia ;  
Christie Jeon, Columbia;  
Li Jiang, Adelaide University ;  
Anthony Johnson, USMA;  
Jeff Johnson, ECU;  
Stephen Johnson, Columbia;  
Laurie A. Jones, self employed;  
Alla Khadka, University of Pittsburgh;  
Jonathan Keeling, Columbia;  
Michael Kenney, University of Pennsylvania;  
Ionnis Krevadis, Princeton;  
Thomas Koehler, Frankenberg University;  
Frank Kunkle, Wombats;  
Bruce Lee, University of Pittsburgh;  
Alex Levis, George Mason University;  
Joel Levine, Dartmouth;  
Larry Lin, Singapore Management University;  
Huan Liu, ASU;  
Richard Lobban, RIC;

Alessandro Lomi, Lugano Switzerland;  
David Makovoz, Impact Computing;  
Eric Malloy, Netanomics;  
Lawrence Marshall, UCDC;  
Michael Matessa, Alion Science;  
Dan Maxwell, KADSCI;  
Elizabeth McGhee-Hassrick, Drexel;  
Joanne Meikle, IRS;  
Jacqueline Merrill, Columbia;  
Matthias Meyer, Hamburg Univ of Technology;  
Fred Morstatter, ASU;  
Tymofiy Mylovanov, University of Pittsburgh  
Tahoa H. Nazer, ASU;  
Emile Okal, Northwestern;  
Mark Orr, Columbia;  
Michael Prietula, Emory;  
James A. Proudfoot, UCSD;  
Febrin, Indonesia;  
Harkunti Rahayu, Indonesia;  
Maxine Rockoff, Columbia;  
Barbara Sheehan, Columbia University;  
Shashi Shekhar, University of Minnesota;  
Hyam Singer, Impact Computing;  
Linsey M Steege, University of Missouri;  
P.D. Stetson, Columbia University;  
Jonathan Storricks, Netanomics;  
Zhan Su, Northeastern Univ. China;  
Gerhard Thiem, Frankenberg Univ;  
Tracy Van Holt, ECU;  
Joyce Verran, University of Arizona;  
Peter Vining, PSU;  
Walter Warwick, Alion Science;  
XC Wei, China;  
Rosalind Wilson, Columbia;  
Liang Wu, ASU;  
Michael Zaggl, Hamburg University of Technology;  
Syed Abbas K Zaidi, George Mason University;  
Taieb Znati, University of Pittsburgh;  
Daniel Zeng, University of Arizona;  
Hai Zhou, Northeastern Univ. China;  
Graduated and current graduate students.