# **Kathleen Mary Carley**

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http://www.casos.cs.cmu.edu/bios/carley/carley.html

# **EDUCATION**

4/2019 H.D. University of Zurich. Business, Economics and Informatics 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 Professor of Sociology, Organizations and IT; Appointments in SDS, Heinz, GSIA and EPP; 9/1998-7/2002 Carnegie Mellon University. Pittsburgh, PA 15213 Associate Professor of Sociology and Organizations; Carnegie Mellon University. Pittsburgh, PA 9/1990-8/1998 Assistant Professor of Sociology and Information Systems; Carnegie Mellon University. 9/1984-8/1990 Pittsburgh, PA 15213

OTHER APPOINTMENTS AND POSITIONS		
7/2019-	Center Director, Center for Informed Democracy and Social cybersecurity (IDeaS)	
7/2018-	Co-director Social Cybersecurity Working Group	
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-Sommerville 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.	

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.

6/1975-10/1976 Research Assistant Prof. Bloomfield, MIT: Political Science. Cambridge, MA.

#### CONSULTING

2018-2020 Wright University 2016-2020 Drexel University 2014 Blue Shield

2011 Centra

2009-2019 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 involves applying computational social science, cognitive science, organization science, dynamic network analysis, social network analysis, machine learning, data analytics and text analytics to complex social and organizational problems such as social cybersecurity, disinformation, disease contagion, disaster response, and terrorism. She develops social and dynamic network analytical and visual techniques, agent-based models, network based text mining and machine learning tools, all predicated on blending socio-cognitive theory with advanced computation. 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 agent-based technology with network dynamics and empirical data. For example, BioWar is 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; and Construct is 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. 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

2019-2020	Conference Chair, SBP-BRiMS 2019
2019	Honorary Doctorate, "Doktor ehrenhalber" Faculty of Business, Economics and Informatics at
	University of Zurich, Zurich Switzerland
2019	Computational Social Science – Quo Vadis? An Interdisciplinary Symposium Honoring Kathleen
	M. Carley, University of Zurich, Zurich Switzerland
2019	Global Development Lab Scientific Advisory Panel
2018	Listed in 50+ Women to follow in computational social science – Sage Ocean,

	https://ocean.sagepub.com/blog/2018/10/8/womentofollow-in-computational-social-science
2018	Listed in 39 Women doing amazing research in computational social science – Sage Ocean,
	available at <a classification="" filter<="" href="https://ocean.sagepub.com/blog/2018/9/28/39-women-doing-amazing-research-i&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;u&gt;computational-social-science&lt;/u&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;2018-2019&lt;/td&gt;&lt;td&gt;Conference Chair, SBP-BRiMS 2019&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;2018&lt;/td&gt;&lt;td&gt;David M. Beskow and Kathleen M. Carley, 2018, " random="" string="" td="" to="" using=""></a>
	and Annotate Automated Accounts," In Proceedings of the International Conference SBP-BRiMS
	2018, Halil Bisgin, Ayaz Hyder, Chris Dancy, and Robert Thomson (Eds.) July 10-13, 2018
	Washington DC, Springer. Best Student Paper
2018	Member of the NAS/NRC ARO Review Committee
4/2018	United States Geospatial Intelligence Foundation Academic Award, GEOINT 2018
10/27/2017	NSC working group
10/25/2017	Briefing to the NSC - Present and Future Influences of Artificial Intelligence and Cyber Warfare
2017-2018	Conference Chair, SBP-BRiMS 2018
2017-2019	Member of the NAS/NRC Committee on Decadal Survey of the Social Sciences
	Present and Future Influences of Artificial Intelligence and Cyber Warfare
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."
2014-2018	Member of the NAS/NRC ARL Review Panel
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 UBICOM Sept 8, 2012 - Pittsburgh, PA. Best
	Paper Award
2011	Senior Member IEEE
2011	Kathleen M. Carley, Simmel Award, International Network for Social Network Analysis,
2011	February 2011, St. Petersburg, FL.
2011	Geoffrey P. Morgan and Kathleen M. Carley, "Exploring the impact of a stochastic hiring function
2011	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
2000	Graphs," In proceedings of Sensor-KDD, Las Vegas, NV, August 24-27, 2008. Best Paper
	Award.
2007 2009	
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
2003-2000	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.
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
1000	meetings. "Computer Analysis of Qualitative Data". ASA meetings: San Francisco, CA.
1989	Certificate from the Social Sciences Applications Special Interest Group of the Operations
1002 1002	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.
- Christopher C. Yang, Hsinchun Chen, Michael Chau, Kuiyu Chang, Sheau-Dong Lang, Patrick Chen, Raymond Hsieh, R., Zeng, D., Wang, F.Y., Kathleen M, Carley, and Mao, W. eds., 2008. Intelligence and Security Informatics: IEEE ISI 2008 International Workshops: PAISI, PACCF and SOCO 2008, Taipei, Taiwan, June 17, 2008, Proceedings (Vol. 5075). Springer.
- 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), 2019, National Academies of Sciences, Engineering, and Medicine. A Decadal Survey of the Social and Behavioral Sciences: A Research Agenda for Advancing Intelligence Analysis. Washington, DC: The National Academies Press. DOI: <a href="https://doi.org/10.17226/25335">https://doi.org/10.17226/25335</a>.
- 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. DOI: <a href="https://doi.org/10.17226/23650">https://doi.org/10.17226/23650</a>.
- 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. DOI: <a href="https://doi.org/10.17226/18619">https://doi.org/10.17226/18619</a>.
- Kathleen M. Carley (panel member), 2013, *Frontiers in Massive Data Analysis*, National Research Council. The National Academies Press. Washington D.C. DOI: https://doi.org/10.17226/18374.
- Kathleen M. Carley (panel member), 2013, *Future U.S. Workforce for Geospatial Intelligence*, National Research Council. The National Academies Press. Washington D.C. DOI: <a href="https://doi.org/10.17226/18265">https://doi.org/10.17226/18265</a>.
- Kathleen M. Carley (panel member), 2008, Behavioral Modeling and Simulation, From Individuals to Societies, National Research Council. Greg L. Zacharias, Jean MacMillan and Susan B. Van Hemel, editors, The National Academies Press, Washington, DC. DOI: <a href="https://doi.org/10.17226/12169">https://doi.org/10.17226/12169</a>.
- 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. DOI: https://doi.org/10.17226/11800.
- Kathleen M. Carley (panel member), 2006, *Defense Modeling, Simulation and Analysis: Meeting the Challenge*, National Research Council. The National Academy Press. Washington, D.C. DOI: <a href="https://doi.org/10.17226/11726">https://doi.org/10.17226/11726</a>.
- 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. DOI: <a href="https://doi.org/10.17226/10735">https://doi.org/10.17226/10735</a>
- 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., DOI: <a href="http://www.nap.edu/readingroom/enter2.cgi?0309060966.html">http://www.nap.edu/readingroom/enter2.cgi?0309060966.html</a>
- 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. DOI: <a href="https://doi.org/10.17226/5714">https://doi.org/10.17226/5714</a>

# **ARTICLES: ORGANIZATIONAL THEORY**

#### REFEREED PUBLICATIONS

- Iain Cruickshank, and Kathleen M. Carley, 2020, Detecting malware communities using socio-cultural cognitive mapping" Computational and Mathematical Organization Theory, DOI: 10.1007/s10588-019-09300-w
- Gian Maria Capdelli, Iain Cruickshank, and Kathleen M. Carley, 2019, "Complex networks approach to find latent clusters of terrorist groups," Applied Network Science 4:29. https://appliednetsci.springeropen.com/articles/10.1007/s41109-019-0184-6
- Barbara Brewer, Judith Effken, Marge Benham-Hutchins, Kathleen M. Carley, 2019, "Exploring the Stability of Communication Network Metrics in a Dynamic Nursing Context," Social Networks, DOI: <a href="https://doi.org/10.1016/j.socnet.2019.08.003">https://doi.org/10.1016/j.socnet.2019.08.003</a>.
- Gian Maria Campedelli, Mihovil Bartulovic and Kathleen M. Carley, 2019, "Pairwise Similarity of Jihadist Groups in Target and Weapon Transitions," Journal of Computational Social Science. pp.1-26. DOI: 10.1007/s42001-019-00046-8.
- Geoffrey Morgan and Kathleen Carley, 2019, "Characterizing Organizational Micro-Climates in Structural Groups," In Proceedings of the International Conference SBP-BRiMS 2019, Halil Bisgin, Ayaz Hyder, Chris Dancy, and Robert Thomson (Eds.) July 9-12, 2019 Washington DC, Springer. DOI: <a href="https://doi.org/10.1007/978-3-030-21741-9\_2">https://doi.org/10.1007/978-3-030-21741-9\_2</a>.

- Thomas Magelinski, Jialin Hou, Tymofiy Mylovanov and Kathleen Carley, 2019, "Detecting Disruption: Identifying Structural Changes in the Verkhovna Rada," In Proceedings of the International Conference SBP-BRiMS 2019, Halil Bisgin, Ayaz Hyder, Chris Dancy, and Robert Thomson (Eds.) July 9-12, 2019 Washington DC, Springer. DOI: <a href="https://doi.org/10.1007/978-3-030-21741-9\_20">https://doi.org/10.1007/978-3-030-21741-9\_20</a>.
- Thomas Magelinski and Kathleen M. Carley, 2019, "Analytic Models of Roll Call Voting Dynamics." *IEEE Transactions on Computational Social Systems*, 6(5); 932-942. DOI: 10.1109/TCSS.2019.2907022.
- Geoffrey B. Dobson, Aunshul Rege, Kathleen M. Carley, 2018, "Informing Active Cyber Defense with Realistic Adversarial Behaviour," *Journal of Information Warfare*, 17(2): 16-31.
- Gian Maria Campedelli, Iain Cruickshank, Kathleen M. Carley, 2018, "Detecting Latent Terrorist Communities Testing a Gower's Similarity-based Clustering Algorithm for Multi-Partite Networks." In the Proceedings of the International Conference on Complex Networks and Their Applications. DOI: <a href="https://doi.org/10.1007/978-3-030-05411-3">https://doi.org/10.1007/978-3-030-05411-3</a> 24.
- Marge Benham-Hutchins, Kathleen M. Carley, Barbara B. Brewer, Judith A. Effken, Jeffrey Reminga, 2018, "Nursing Unit Communication During a US Public Health Emergency: Natural Experiment," *JMIR Nursing* 1(1). DOI: 10.2196/11425.
- Geoffrey B. Dobson and Kathleen M. Carley, 2018, "A Computational Model of Cyber Situational Awareness," In Proceedings of the International Conference SBP-BRiMS 2018, Halil Bisgin, Ayaz Hyder, Chris Dancy, and Robert Thomson (Eds.) July 10-13, 2018 Washington DC, Springer. DOI: <a href="https://doi.org/10.1007/978-3-319-93372-6">https://doi.org/10.1007/978-3-319-93372-6</a> 43.
- Thomas Magelinski and Kathleen M. Carley, 2018, "Legislative Voting Dynamics in Ukraine," In Proceedings of the International Conference SBP-BRiMS 2018, Halil Bisgin, Ayaz Hyder, Chris Dancy, and Robert Thomson (Eds.) July 10-13, 2018 Washington DC, Springer. DOI: <a href="https://doi.org/10.1007/978-3-319-93372-6">https://doi.org/10.1007/978-3-319-93372-6</a> 10.
- Elizabeth McGhee Hassrick, Paul Shattuck and Kathleen M. Carley, 2018, "Network Measures of Collaborative Support for Young Adults with Autism." *Pediatrics*, 141(4): S287-S292. DOI: 10.1542/peds.2016-4300E.
- Barbara B. Brewer, Kathleen M. Carley, Marge Benham-Hutchins, and Judith A. Effken, 2018, "Nursing Unit Design, Nursing Staff Communication Networks and Patient Falls: Are They Related?" *Health Environments Research & Design Journal*, 11(4): p.1937586718779223. DOI: 10.1177/1937586718779223.
- Barbara B. Brewer, Kathleen M. Carley, Marge Benham-Hutchins, Judith A. Effken, Jeffrey Reminga, and Michael Kowalchuck, 2018, "Relationship of Staff Information-Sharing and Advice Networks to Patient Safety Outcomes." *Journal of Nursing Administration*, 48(9): Sept 2018. DOI: 10.1097/NNA.00000000000000646.
- Geoffrey B. Dobson, Timothy J. Shimeall and Kathleen M. Carley, 2017, "Towards Network Science Enhanced Cyber Situational Awareness." *International Journal on Cyber Situational Awareness*, 1(1):11-30. DOI 10.22619/IJCSA.2017.100112.
- Kathleen M. Carley and Geoffrey P. Morgan, 2016, "Inadvertent leaks: exploration via agent-based dynamic network simulation." *Computational and Mathematical Organization Theory* 22(3): 288-317. DOI: https://doi.org/10.1007/s10588-016-9215-3.
- Jacqueline A. Merrill, Barbara Sheehan, Kathleen M. Carley, and 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
- 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.
- 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
- 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): 507-517. Available from <a href="DOI: 10.1016/j.ijmedinf.2014.05.001">DOI: 10.1016/j.ijmedinf.2014.05.001</a>

- 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
- 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.
- 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.
- 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.
- Jacqueline Merrill, Mark G. Orr, Christie Y. Jeon, Rosalind V. Wilson, Jonathan Storrick 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.
- 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
- 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
- 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
- Jacqueline A. Merrill, Kathleen M. Carley, Mark G. Orr, Christie Y. Jeon and Jonathon Storrick, 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: <a href="http://uknowledge.uky.edu/frontiersinphssr/vol1/iss1/6">http://uknowledge.uky.edu/frontiersinphssr/vol1/iss1/6</a>
- 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
- 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
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- 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.
- 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.
- 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.
- 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.
- 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.
- 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 V1: Data Collection and Scaling," Journal of Classification Research, 6:2: 301-304.

#### SELECTED WORKING PAPERS

- Wei, Wei, Kennth Joseph, and Kathleen Carley. "Efficient Online Inference for Infinite Evolutionary Cluster models with Applications to Latent Social Event Discovery." arXiv preprint arXiv:1708.06000 (2017).
- 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 Tsvetovat, 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

	NOTES AND I LENART TALKS
2/2020	"Analysis of Social Networks for Intelligence," Army War College Workship, Carnegie Mellon
	University, Pittsburgh, PA.
2/2020	"Influence Campaigns in Social Media," Plenary, Hacking Democracy: Influence operations in the
	Digital Age, Oslo, NO
12/2019	"Russian and Chinese Influence in Social Media," Plenary, Best Practices and Gaps to Be
	Closed—Addressing Foreign Interference in Democratic (and Other) Institutions, The Atlantic
	Council, Washington DC Cohosted by Carnegie Mellon University, Washington, DC
12/2019	"Advances and Opportunities in Social-cybersecurity," Plenary, DHS Foreign Interference,
	Washington DC
12/2019	"CUES - Understanding information maneuvers in social media using implicit information,"
	Keynote - TextXD: Text Analysis Across Domains, University of California, Berkeley, CA
11/2019	"Artificial Intelligence and Social Cybersecurity," Keynote - AAAI Symposium on AI in
	Government and Public Sector, Washington DC
10/2019	"Influence Operations: BEND maneuvers using bots and memes for social cybersecurity,"
	Pleanry, The NATO Science for Peace and Security Programme: Senior Leadership Roundtable
	on Information-Related Hybrid Threats in South East Europe, Ohrid, Macedonia
10/2019	"Social Cognition: Why Simple Learning Models Fail," Plenary, Conference in Honor of Jim
	March, CMU, Pittsburgh, PA
9/2019	"Social Cyberseurity," Plenary, Decadal Launch Event, National Academies, Washington DC
7/2019	"Decadal Survey Report: SenseMaking & Social Cybersecurity," Plenary, SBP-BRiMS,
	Washington DC
7/2019	"Social Cybersecurity," Plenary, DHS Conference on Disinformation
4/2019	"Social CyberSecurity Dynamics," Keynote Computational Social Science – Quo Vadis? An
	Interdisciplinary Symposium Honering Kathleen M. Carley, University of Zurich, Zurich
	Switzerland <a href="https://uzhdag.github.io/css/">https://uzhdag.github.io/css/</a>
4/2019	"Information Maneuver Asessment," Keynote - StratComAPAC2019, Singapore Singapore
4/2019	"Social CyberSecurity Dynamics," Keynote - SocialSens, Montreal Canada
11/2018	"Social CyberSecurity," Keynote - IEEE Intelligence and Security Informatics, Florida
	International University, Miami, FL
10/2018	"Social CyberSecurity," Keynote MOBICOM, Delhi, India
9/2018	"Network Analysis and AI for Humanitarian Assistance and Disaster Response," Plenary, AI and
	HADR workshop, AI Visionary Talk, Carnegie Mellon University, Pittsburgh, PA
12/2017	"Geo-Spatial Social Network Analysis of Social Media to Mitigate Disasters," Plenary, AGU,

	New Orleans, LA
10/2017	"Influence Operations, Bots and ORA," Plenary, TIDESPRINT – NATO, Virginia Beach, VA
9/2017	"Diffusion in the Social-Cyber Landscape: Using simulation to explore the link between off-line
	and on-line activity," Plenary, Social Simulation Conference 2017, September 25-29, 2017,
0/2017	Dublin Ireland
8/2017	"Social Influence Bots and Disinformation," Plenary, JCOIE Workshop, Disinformation,
7/2017	Propaganda, & Computational Propaganda Panel, Washington D.C.
7/2017	"Social Influence on the Web: Bots and Fake News," Plenary, IC2S2, Cologne, Germany
4/2017	"Networks and Social Change," Plenary, Rand Workshop – DARPA Santa-Monica, CA
3/2017	"Wisdom or Ignorance: The thoughtful use of networks," Plenary, 8th Annual ANN SONIC workshop on Network Theory, March 23-25, 2017 at USC, in Los Angeles
12/2016	"Knowledge Dynamics," Plenary, Networks as Indicators of Science and Engineering Activity
12/2010	(NCES) NSF Workshop, George Washington University, Washington, DC
10/2016	"NATO: Lessons Learned on Network Analysis of Social Media," Plenary, TIDESPRINT –
10/2010	NATO, Virginia Beach, VA
10/2016	"Dynamic Networks in a Cyber-Mediated World." Keynote PRO-VE 2016 – Collaboration in a
10,2010	Hyperconnected World, Porto, Portugal
9/2016	"Tracking Change in the Cyber-Mediated World." Plenary, Symposium on Frontiers on Big Data,
3/ <b>2</b> 010	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, Krackow, 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,
7/2014	Pittsburgh, PA
7/2014	"Networks, Language, Organizations," Academy of Management, Philadelphia, PA
7/2014	"Social Media, Security and Personal Information," Keynote Networking Information Technology
2/2014	Research and Development (NITRD), Washington DC
3/2014	"Analyzing and Simulating Dynamic Networks," Rand Conference, Arlington, VA
3/2014 11/2013	"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
0/2013	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
3/2013	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,
3/2012	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,
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5/2011	"Crisis Response – Rapid Ethnographic Assessment," Stanford Social Conference on
2/2011	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,
2/2011	UT. "Embedded Conversations: Trails of Constraints in Every Day Life," INSNA Keynote, February
2/2011	2011, St. Petersburg, FL.
12/2010	"The Social Network Perspective," Spatio-Temporal Constraints on Social Networks / Specialist
12/2010	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
7/2000	Workshop 2009, Sep 24; Honolulu, HI
7/2009	"Dynamic Network Analysis and Security" CISDA Computational Intelligence for Security and
6/2009	Defense Applications 2009, Ottawa, Ontario "Dynamic Network Analysis: New Capabilities and a Look into the Future." Human Behavior-
0/2009	Computational Intelligence Modeling Conference 2009, Oak Ridge, Tennessee
4/2009	"Dynamic Network Analysis", Keynote, Social Networks and Multiagent Systems Symposium,
1,200)	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
<i>5</i> /2000	Workshop, Washington DC.
5/2008	"Dynamic Network Analysis to Support Counter-Narcotics Activities" 2008 National HIDTA
4/2008	Conference, Coronado, CA.  "Advances and Challenges in Dynamic Network Analysis," Analyzing the Impact of Emerging
4/2006	Societies on National Security, MORS, Chicago, IL
4/2008	"Vibes," OneSaf, Orlando, FL.
3/2008	"Dynamic Network Analysis," Exploring Creative Approaches to Intelligence Problems,
2,2000	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,
40/200=	Lake Tahoe, CA.
10/2007	"Dynamic Network Analysis: Harnessing Complexity," International Conference on Complex
10/2007	Systems (ICCS-07), Boston, MA.  "The promise and shellower of limiting social and anotical networks." Frontiers in Transportation
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
J. 2007	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	
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.
2/2006	
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, Pentagaon, 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
11/2004	Terrorism Tool Conference, MORS, US Naval War College Newport, Rhode Island.
0/2004	
9/2004	"Dynamic Network Analysis for Homeland Defense: Destabilizing Terror Networks," DIMACS,
2/2004	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 approached," 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
3/2001	Intelligence (JSAI 2001). Matsue City, Shimane Japan
5/2001	"On the Evolution of Networks", Plenary, JSAI 2001 International Workshop on Agent-based
3/2001	
	Approaches in Economic and Social Complex Systems (AESCS 2001) Matsue City, Shimane
1/2001	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.
1,1770	Changing information recliniciogies, reginote address in to meeting. Thusburgh, IA.

## INVITED TALKS

5/2020	"COVID-19 and Disinformation." Science and Technology Diplomacy Hube Seminar, Barcelon-
	through Zoom

4/2020 "Disinformation and the CoronaVirus: Early Findings," Stanford webinar – Cyber Policy Center

2/2020	Online Event Series
3/2020 12/2019	"Aversarial Information Campaigns and Covid-19," EUCOM seminar
	"Influence Campaigns in Social Media," Washington DC Telcon, 95 people
11/2019	"Influence Operations: BEND maneuvers using Bots and Memes for Social Cybersecurity," CMU Cylab Distinguished Speaker Series, Pittsburgh, PA
11/2019	"Social Cybersecurity and Information Maneuvers," George Washington University, Washington
11/2019	DC
10/2019	"Decadal Survey Report for the Social Sciences," HFES, Seattle, Washington
10/2019	"Social Cybersecurity: Assessing Information Maneuvers in Cyber-Space." MITRE
10/2019	Teleconference
10/2019	"Decadal Survey Report for the Social Sciences," IC, Washington DC
9/2019	"Statistical Network Techniques," Minerva Review, Washington DC
7/2019	"Near Real Time Assessment of Emergent Complex Systems of Confederates," MURI Overall
	Progrm Review, OSD, Washington DC
7/2019	"Decadal Survey Report for the Social Sciences," INGroup, Lisbon, Portugal
7/2019	"Decadal Survey Report for the Social Sciences," IC2S2, Amsterdam, NH
7/2019	"Disinformation and Social Cyber-Security," Special Workshop on Disinformation - SBP-BRiMS,
	Washington DC
6/2019	"Social Cybersecurity," Fed Cybersecurity R&D IWG, Washinton DC based Teleconference
6/2019	"Social Cyber-Security Dynamics," SMA speaker, Washinton DC based Teleconference
5/2019	"Decadal Survey Report: Social Cyber-Security," APS, Washington DC
5/2019	"Social Cyber-Security Dynamics: Challenges and Key findings," APS Cyber Security Workshop,
5/2019	Washington DC "Human Threats versus Machine Threats in Cyber Security," SMA 2019, Andrews Air Force
3/2019	Base, Washington DC
5/2019	"Comments on Social Network and NLP," Digital Tools and the Future of International
3/2017	Development I, USAID, Washington DC
5/2019	"What Lies Beneath? - Network and social media analytic approaches to information
0.2015	extraction," RTI Fellows Seiminar
4/2019	"Simulating Complex Social-Behavioral Systems," SpringSim, Tucson, AZ
4/2019	"Simulation – Best Practices for Virtual Worlds – Panel," SpringSim, Tucson, AZ
4/2019	"The Next Big Thing in Social Sensing," SocialSens Panel, Montreal Canada
1/2019	"Information Maneuvers as Social Cyber-Security Threats," AFRL Chief Science Seminar Series,
	Wright-Patterson Air force Base, Dayton, OH
8/2018	"Machine Learning for Operational Needs," SMA Limits of AI Speaker Session-, 150 call-ins
	from all major commands, agencies, and many companies and universities
6/7/2018	"Bots Brokering Beliefs & Business," Machine Learning in Science & Engineering, Pittsburgh,
<b>7/0</b> 040	PA
5/2018	"Social Influence in Cyber Space," Sheffren Lecture, University of Davis, Davis, CA
5/2018	"Wisdom & Ignorance: Managing and Manipulating Groups through Heedful Interaction,"
11/2017	University of Waterloo, Waterloo Canada "Diversity of Naturally Paged A accompany of Pagilian av." ETIL Zymich Syvitzerland
11/2017 11/2017	"Dynamic Network Based Assessment of Resiliency," ETH Zurich Switzerland "Dynamic Social Networks: Findings and Challenges," International University of Rabat, Rabat
11/201/	Morocco
10/2017	"Disinformation Campaigns," SMA Fake News Speaker Session- Disinformation in Social Media,
10/2017	120 call-ins from all major commands and agencies
10/2017	"Fake News," South Big Data Hub Speaker Session
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,
0/004 =	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,
1/2013	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,
11/2014	
C/2014	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,
2/2011	Lugano, Switzerland
10/2013	"The Power of Meta-Networks for Rapid Ethnographic Assessment," Duke University, Raleigh-
10/2013	
10/2012	Durham, NC
10/2013	"A Rapid Ethnographic Assessment of Myanmar," Social Computing and Crisis in the New
10/2012	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,
)1201J	Westpoint, NY
8/2013	
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
5,2012	University, Fairfax, VA
2/2012	"Social Dynamics: Change in Web-Mediated Geographically Embedded Social
2/2012	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
0/2011	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,
0/2010	Washington, DC.
4/2010	"Individuals and Organizations: The Dynamic Networks of Conflict." Networks and Cognition
7/2010	Workshop, RPI, Troy NY
11/2009	"Geo-Spatial Dynamic Network Analysis", HSCB Geospatial Analysis, Modeling and
11/2009	Visualization Workshop.
11/2009	"Geo-Based Dynamic Network Metrics", Presented at the 2009 USACE Research and
11/2009	Development Conference, 2009 November, 17; Memphis, TN.
11/2000	
11/2009 10/ 2009	"A Dynamic Network Analysis Approach to Trust", AFRL Trust Workshop, Dayton, OH.
10/ 2009	"Dynamic Network Analysis: Management and Intervention," Network Science Workshop,
10/2000	Carnegie Mellon University, Tepper School of Business, Pittsburgh, PA.
10/2009	"Multi-modeling, Meta-modeling and M&S Technology". <i>Modeling and Simluation in Support</i>
7/2000	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
(/2000	(PDW Session 27), Chicago, IL, August 7, 2009.
6/2009	"Pattern Detection for Merchant Marine Vessel Traffic," Host, ONR Workshop, Carnegie Mellon
4/2000	University, Pittsburgh, PA. June 25-26, 2009.
4/2009	"Information & Belief Diffusion Through Social Networks: Empirically Grounded Simulation,"
2/2000	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
12/2000	State University, State College, PA.
12/2008	"Dynamic Networks Analysis in the Security Domain," European Conference on Intelligence
10/2000	Security Informatics 2008, Copenhagen, Denmark.
10/2008	"Provision of Services and Information to the TaxPayer: A Computational Reasoning Approach,"
10/2000	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
1/2000	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
0/2007	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,"
5,200,	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
12/2000	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
10.200	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
000	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,"
1,2000	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,
10/2005	Distinguished Lecture series, UIUC
4/2005	"Destabilizing Terrorist Networks," Understanding Terrorist Network Organizations, Naval Post
1,2005	Graduate School, Monterrey, 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
112003	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
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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
2/2004	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
0.404.400	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
4/2002	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,
1/2002	University of Michigan
1/2003	"Multi-Agent Modeling for Bio-Defense" Society for Simulation and Modeling," VWSIM,
1/2002	Orlando, FL.
1/2003 1/2003	"BioWar" Sandia National Labs, Albuquerque, NM "Inhibiting Adaptation in Dynamic Networks" Sandia National Labs, Albuquerque, NM
12/2003	"Modeling Covert Networks" National Research Council Round Table on, Washington, DC.
11/2002	"Dynamic Network Analysis" National Research Council Workshop on Social Network Modeling
11/2002	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,
3/2002	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, Beufort, NC
2/2001	"Network Based Knowledge Management and Organizational Change", University of Arizona,
2/2001	Tucson, AZ.
2/2001	"Organizations as Intelligent Complex Adaptive Systems" Arizona State University
11/2000	"Computational Organizational Models" Tutorial, International Joint Conference IBERAMIA
10/2000	2000, Sao Paulo Brazil
10/2000	"Organizational Change: A Knowledge Interaction Perspective" Marschak Colloquium, UCLA,
0/2000	Los Angeles, CA "Managing Change: An Interaction Knowledge Perspective", Conference on Complexity and
9/2000	Public Policy, Rand, Washington DC
8/2000	"Organizational Adaptation and ORGAHEAD", NATO Workshop, Naval Center for Applied
0/2000	Research in Artificial Intelligence, Ft. Meade, VA
8/2000	"The Value of Agent Based Models for Organizational Science", Academy of Management,
3,2000	Toronto, Canada
8/2000	"Quantitative Methods for Applying Complexity Theory to Organizations: Simulation Based
	Approaches", Academy of Management, Toronto, Canada
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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,
1/1///	Columbia University, New York, NY.
4/1999	"Computational Analysis of Teams." Human Centered Design Environment Workshop,
1/1///	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
12,1770	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
10/1//0	Society Conference, Chicago, IL
6/1998	"Examining Adaptation and Flexibility in Command and Control Architectures." Army After
0/1//0	Next, Xerox Document University
6/1998	"Learning Within and Among Organizations", Organizational Learning Conference, CMU,
0/1//0	Pittsburgh, PA
5/1998	"Organizational Perspective." NRC report at Computer Generated Forces conference, Orlando,
0,1990	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,
1, 1990	Cornell, University, Ithaca, NY.
1/1998	"The Risk of Adaptation." Workshop on "The potential of computer simulation in the social
1, 1990	sciences" University of Surrey, Guildford, UK.
11/1997	"Modeling Organizations" Workshop on Cognitive Models in the Design and Operation of
11,100,	Complex System, CHI Systems, Baltimore, MD
10/1997	"Dynamic Organizations: Organizational Adaptation in a Changing Environment," INFORMS,
10,1997	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,
• 4.00 /	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 4/1995	"Advances in Computational Organization Theory," INFORMS "The Evolution of Organizational Forms" UCLA, Los Angeles, CA
8/1994	"VDT and Organizational Models," SantaFe Institute - Workshop on Computational Organization
0/1774	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
10,1995	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
10/1000	Environment," ORSA/TIMS, San Francisco, CA.
10/1992	"Training and Organizational Performance" Dept. of Sociology, University of Iowa, Iowa City,
2/1002	IA.
3/1992 3/1992	"Co-evolution of Self and Society," Heinz Carnegie Mellon University, Pittsburgh, PA. "Simulating Society," University of Pittsburgh, Pittsburgh, PA.
3/1992	"Society, Culture and Technology: Toward an Integrated Theory of the Role of Communication in
3/1992	Social Change," Taft Lecture Series, University of Cincinnati, Cincinnati, Ohio.
3/1992	"Emergence of Scientific Fields," Sociology Colloquium, University of Cincinnati, Cincinnati,
3/1//2	Ohio.
11/1991	"Analysis of Qualitative Data," Society for the Scientific Study of Religion, Panel on Methods,
11/1///1	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
0/1000	Workshop on Organizational Issues in US Nuclear Policy. Oakland, CA.
8/1990	"Computer Analysis of Qualitative Data," Didactic Seminar. American Sociological Association
7/1000	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.
8/1989	"Computer Analysis of Qualitative Data," Didactic Seminar. American Sociological Association
6/1000	Meetings. San Francisco, CA.
6/1989	"Organizational Learning and Personnel Turnover." NSF sponsored conference on Organizational
5/1000	Learning: Carnegie Mellon University, Pittsburgh, PA.
5/1989	"Group Stability: A Socio-Cognitive Approach," Social Relations Dept. University of California
5/1989	Irvine, Irvine, CA. "Simulation and Social Theory," Sociology Dept. University of California Riverside, Riverside,
3/1909	CA.
5/1989	"Predicting Interaction Using Simulation: The Tailor Shop Case," USCB Social Network
3/1707	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
1909	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
5/1007	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.
4/190/	Columbia, SC.
11/1986	National Research Council, Committee on Human Factors, Workshop on Distributed Decision
11/1/00	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. Monterray,
	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.
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	RSES AND EXECUTIVE EDUCATION
6/2020	"DNA, Networks and Social Media," CASOS Summer Institute
2/2020	"Social Cybersecurity - Analysis of Social Networks for Intelligence and Defense," Army War
11/2010	College "Social Cubarassouity." COL Training for Indian officials CMIL Dittahyards DA
11/2019 11/2019	"Social Cybersecuity," GOL Training for Indian officials, CMU, Pittsburgh, PA
10/2019	"Dynamic Network Analysis," GOL Training for Indian officials, CMU, Pittsburgh, PA "Social Cybersecurity," Army War College
7/2019	"Understanding Disinformation Campsigns," SBP-BRiMS, 2019, Washington DC
6/2019	"From Texts to Networks to Maps," INSNA Sunbelt XXXIX, Montreal, CA
6/2019	"DNA. Networks and Social Media," CASOS Summer Institute
9/2018	"Social Media Analytics," CMU Training for 2MEF, Pittsburgh, PA
7/2018	"From Texts to Maps," SBP-BRiMS, 2018, Washington DC
7/2018	"From Texts to Maps," INSNA Sunbelt XXXVIII, Utrecht, Netherlands
6/2018	"DNA. Networks and Social Media," CASOS Summer Institute
2/2018	"Dynamic Network Analytics for Cyber Security," Army War College
11/2017	"Introduction to Social Network Analysis for Social Media," International University of Rabat,
	FF

	Morocco
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,
3/2010	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-Champaigne, 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
112009	Science, Ottawa,CA
6/2009	"Networks and Simulation," CASOS Summer Institute
6/2008	"Networks and Simulation," CASOS Summer Institute  "Networks and Simulation," CASOS Summer Institute
5/2008	"Dynamic Network Analysis," USMA "Networks and Simulation." CASOS Summer Institute
6/2007	"Networks and Simulation," CASOS Summer Institute "Dynamic Network Analysis" CIA
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
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," Merril 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.

## **CONFERENCE PRESENTATIONS**

COLUZION	T TEBEL (TITTED TO
2019	IC2S2
2019	INGroup
2019	SpringSim, Tucson AZ
2019	Social Sensing, Montreal, Canada
2016, 2017	TIDESPRINT
2017, 2018	NASN Washington DC
2015	HotSOS 2015, Champaign-Urbana IL
2014, 2015	Political Networks Conference
2014	Cyber Security Workshop, Boston MA
2013, 15, 16, 19	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
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

1995-

1999-2007

AMIA 2007 Annual Symposium 2007 Huntsville Simulation Conference (HSC) 2007 2007 AAMAS (Autonomous Agents and Multiagent Systems) European Accounting Association Conference, Lisbon 2007 2007-09 USMA Network Science SBP-BRIMS 2015-19 2007, 11-13 **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 **IBERAMIA** 2000 **CASOS** Conference 2000-2003 1999,2000 PITA Symposium 1999,00,02 Agents **Human Factors Society** 1998 1998 AAAI 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 1985-94,96-97,99-00,02-19 INSNA Sunbelt International Social Network Conference 1995 Association for Information Systems Hawaii International Conference on System Sciences 1990 1990 **Public Choice Meetings** 1990 American Anthropological Association Meetings 1989-1990 1989 International Conf. on Industrial and Crisis Management 1989 Midwestern Sociological Society Meetings 1987-1988 Eastern Sociological Association Meeting 1984,88-89,91-94ORSA/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 **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

Computational and Mathematical Organization Theory — Founding Co-Editor

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	Inter. Journ of Intelligent Systems in Accounting, Finance & 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, SI on Computational Org. Theory
1993	Inter. Journ of Intelligent Systems in Accounting, Finance & Management — Guest Co-Editor for
	SI on Mathematical & Computational Models of Organizations: Models & Characteristics of
	Agent Behavior
1989-1994	Information and Decision Technologies — Associate Editor

## **REVIEW ACTIVITIES**

Academy of Management Review Accounting, Management and Information Technologies

Administrative Science Quarterly

Air Force

American Journal of Sociology 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**

2019	Baltops 2019 Remote Support Cell Participant
2019	Computational Cybersecurity In Compromised Environments (C3E) Participant
2019	NSF Social Cyber-Security and Disinformation Workshop - Chair
2019	ONR Strategic Conversations: Online Information Warfare Today – Co-Chair
2019	DoD Future Directions Workshop on Social Science Participant
2018	Tident Juncture 2018 Remote Support Cell Participant
2018	LOE2 NATO 2018 Participant
2017	Trident Joust 2017 Participant
2017	CCC Cyber Security Workshop Member
2017-	South Big Data Hub Social Cyber Security Working Group – Co-Chair
2017-2019	NRC Panel Member, Decadel Study
2018-2019	SBP-BRiMS 2019 Conference Chair

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
2007-2008	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
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

	THOT EDUTOT THE TIESTED OF		
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 3/2020- Mihovil Bartulovic

3/2020-	Mihovil Bartulovic
11/2019-	Aman Tyagi (EPP) with Douglas Sicker
8/2019-5/2020	Binxuan Huang (ISR)
6/2019-	Iain Cruickshank (ISR)
5/2019-5/2020	David Beskow (ISR)
1/2019-5.2020	Sumeet Kumar (ISR)
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)

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2/2008-5/2009
                Victoria Yuhas-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)
                Marcelo Cataldo (ISR) with Jim Herbsleb
1/2007-1/2008
                Mike Ashworth (ISRI)
5/2006-5/2007
                Edoardo M. Airoldi (ISRI) with Steve Feinberg
1/2006-1/2007
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)
                Li-Chiou Chen (Engineering and Public Policy)
8/2001-8/2003
                Eleanor Lewis (Social and Decision Sciences) NSF Dissertation Award, Simon Award
1/2000-5/2003
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
                Zhiang Lin (H.J. Heinz III School of Public Policy and Management)
9/1990-5/1994
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)
                Brad Malin (ISRI)
1/2005-5/2006
                Neil Strachan (Engineering and Public Policy)
5/1998-5/2001
                Rangaraj Ramanujam (Graduate School of Industrial Administration)
8/1996-6/2000
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)
                Kung-Jen Tu (School of Architecture)
11/1997
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
12/2018-9/2019 Gian Marie Campadelli (Italy) (full advisor)
11/2017-6/2018 Felicia Natalia (Singapore University)
10/2017-12/2018 Larry Lin (Singapore University)
12/2016-7/2017 Fred Morstatter (Arizonia State University)
6/2014-5/2015
                Angela Burth (University of Phoenix)
                Shauhrat S. Chopra (University of Pittsburgh)
6/2014-6/2015
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)

Aliaksandr Birukou (Trento University, Italy) 5/2008-3/2009 Alexei Sharpanskykh (Vrije Universiteit Amsterdam, Artificial Intelligence, Amsterdam) 8/2007-12/2008 5/2005-5/2006 Jerry Kane (Emory University, Goizueta Business School) Hyung Sam Park (University of Pittsburgh, Sociology) 8/2006-8/2007 Mark Hoogendoorn (Vrije Universiteit, Artificial Intelligence, Amsterdam) 9/2006-6/2007 Charles Lebedz (Boston College, Business) 9/2004-12/2006 Tom Clancy (The University of Iowa College of Nursing) 5/2005-5/2006 9/2002-1/2004 James Hazy (The George Washington University) 9/1998-5/2002 Casey Rowe (University of Pittsburgh, Accounting - Katz,) Kayo Fujimoto (University of Pittsburgh, Sociology) 11/2003 Kari (Kelton) Chopra (RPI, Decision Sciences and Engineering Systems) 10/1998-8/2001 9/1999-8/2000 Sucheta Nadkarni (University of Kansas, Business) 4/1998-5/1999 Junalux Chalidabhongse (Stanford Univ., Engineering-Economic Systems and Operations 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

9/2020-Janice Blane (ISR) JD Moffet (ISR) 1/2020-9/2019-Catherine King (ISR) 9/2019-Daniele Belluta (ISR) 9/2019-Jeremy Straughter (ISR) 9/2018-Joshua Uyheng (ISR) 9/2018-Christine Sowa (ISR) 9/2018-Luke Osterritter (ISR/SEI) Mihovil Bartulovic (ECE) 12/2017-4/2020 David Beskow (ISR) 8/2017-5/2019 Iain Cruickshank (ISR) 8/2017-6/2019 Thomas Magelinski (ISR) 8/2017-Ramon Villa Cox (ISR) 8/2016-Sumeet Kumar (ECE/ISR) 10/2015-1/2019 Binxuan Huang (ISR) 8/2015-8/2019 Geoff Dobson (ISR/SEI) 8/2015-Jonathan Lakey (Heinz) 6/2015-9/2015 9/2014-6/2016 Matthew Benigni (ISR) Tanmay Sinha (LTI) 9/2014-12/2015 9/2011-12/2014 William Frankenstein (EPP) 9/2011-5/2013 Nelson Vega-Moya (ISR) 9/2011-8/2013 Dennis Chung (ISR) Ghita Mezzour (ISR) 1/2011-4/2014 9/2010-12/2015 Wei Wei (ISR) Kenneth Joseph (ISR) 9/2010-5/2015 Geoffrey Morgan (ISR) 9/2009-2/2015 9/2007-9/2013 Peter Landwehr (ISR) 9/2007-9/2012 Jamie Olson (ISR)

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

8/2019- Shahan Ali Memon (LTI) 4/2017-5/2018 Adam Tse (INI)

 4/2017-5/2018
 Adam Tse (INI)

 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

1/2020- Linda Ortenza (Heinz)

11/2016-12/2017	John Villarraga (Chemical Engineering)
8/2016-5/2018	Adam Tse (MITS)
8/2016-8/2017	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 6/2018-5/2019 — Xinye (Joyce) Wang — On-Eds in an era of Socil Media (tonic) (CS)

6/2018-5/2019	Xinye (Joyce) Wang — Op-Eds in an era of Socil Media (topic) (CS)
11/2016-1/208	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

1,01, 01,10,11,11,11,11,11,11,11,11,11,11,11,1	
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 Sheldon White (Co-Chair) Deceased James Davis University of Chicago Deceased John Padgett University of Chicago Roger Brown Deceased

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

Nitin Agarwal, University of Arkansas, Little Rock;

Samer Al-Khateeb, University of Arkansas, Little Rock;

Marge Benham-Hutchins, Univ. of Texas-Austin;

Mia Bloom, Georgia State University;

Matthew Brashears, University of South Carolina;

Barbara Brewer, University of Arizona;

Michael Caldwell, Columbia;

Gian Maria Campedelli, Italy;

Guido Cervone, PSU;

Louise Comfort, University of Pittsburgh;

Judith Effken, University of Arizona;

Matthew Elder, John Hopkins University, APL;

Terrill Frantz, Harrisburg University;

Lee Freitag, Woods Hole;

Shih-Fen Cheng, Singapore Management University;

Kristine Gebbie, Columbia;

Viswanath Gunturi, University of Minnesota;

Brian R. Hirshman, UCSD;

Bin Hu, China;

Jeff Johnson, ECU;

Anthony Johnson, John Hopkins University APL;

Kenny Joseph, University at Buffalo;

Chris Kurz, I-A-I;

Joel Levine, Dartmouth;

Larry Lin, Singapore Management University;

Huan Liu, ASU;

Eric Malloy, Netanomics;

Vikram Manikonda, I-A-I;

Lawrence Marshall, UCDC;

Elizabeth McGhee-Hassrick, Drexel;

Jacqueline Merrill, Columbia;

Fred Morstatter, USC-ISI;

Tymofiy Mylovanov, University of Pittsburgh

Tahoa H. Nazer, ASU;

Emile Oka, Northwestern;

Susannah Paletz, UMD:

Gordon Pennycook, University of Regina Canada;

Febrin, Indonesia;

Harkunti Rahayu, Indonesia;

Maxine Rockoff, Columbia;

Barbara Sheehan, Columbia University;

Shashi Shekhar, University of Minnesota;

Jonathan Storrick, Netanomics;

Liang Wu, ASU;

Taieb Znati, University of Pittsburgh;

Graduated and current graduate students.