

ALINA LUNGEANU

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ACADEMIC APPOINTMENTS

Northwestern University Evanston, IL (October 2017 – Present)
School of Communication
Research Assistant Professor, Department of Communication Studies

Northeastern University Boston, MA (October 2018 – Present)
Network Science Institute
Visiting Research Assistant Professor

Pennsylvania State University University Park, PA (2015 - 2017)
Social Science Research Institute
Research Associate

EDUCATION

Northwestern University Evanston, IL
McCormick School of Engineering & School of Communication
Ph.D. Technology and Social Behavior December 2015
Title: Assembly Mechanisms of Interdisciplinary Scientific Teams and Their Impact on Performance
❖ *Awarded the 2016 Northwestern University School of Communication Graduate Dissertation Prize*
Committee: Noshir Contractor (chair), Darren Gergle, Brian Uzzi, Uri Wilensky, Teresa Woodruff

Academy of Economic Studies Bucharest, Romania
Faculty of Economic Cybernetics, Statistics and Informatics
M.Sc. Management Information Systems August 2002
B.Sc. Computer Science May 2001

RESEARCH INTEREST

I focus on two key aspects of collaboration: (1) its social dynamics and (2) its impact on innovation. Theoretically, I use social networks and social science theories to examine team innovation and the evolution of scientific fields. To address these issues, I use computational social science approaches including advanced social network analytic techniques, agent-based modeling, and text analytics.

REFEREED PUBLICATIONS

Lungeanu, A., Carter D.R., DeChurch, L.A., & Contractor, N.S. (2018). How team interlock ecosystems shape the assembly of scientific teams: A hypergraph approach. *Communication Methods and Measures*, 12(2-3), 174-198.

Norton, W., **Lungeanu, A.**, Chambers, D., & Contractor, N.S. (2017). Mapping the growing discipline of dissemination and implementation science in health. *Scientometrics*, 112(3), 1367-1390.

Graif, C., **Lungeanu, A.**, & Yetter, A. (2017). Neighborhood isolation in Chicago: Violent crime effects on structural isolation and homophily in inter-neighborhood commuting networks, 2002-2013. *Social Networks*, 51, 40-59.

Lungeanu, A. & Contractor, N. S. (2015). The effects of diversity and network ties on innovations: The emergence of a new scientific field. *American Behavioral Scientist*, 59(5), 548-564.

Sullivan, S., **Lungeanu, A.**, DeChurch, L.A., & Contractor, N.S. (2015). Space, time, and the development of shared leadership networks in multiteam systems. *Network Science*, 3(S01), 124-155.

Lungeanu, A., Sullivan, S., Wilensky, U., & Contractor, N.S. (2015). A computational model of team assembly in emerging scientific fields. *Proceedings of the 2015 Winter Simulation Conference*, Huntington Beach, Edited by CA. L. Yilmaz, W. K. V. Chan, I. Moon, T. M. K. Roeder, C. M. Macal & M. D. Rossetti (Eds.).

Lungeanu, A., Huang, Y., & Contractor, N. S. (2014). Understanding the assembly of interdisciplinary teams and its impact on performance. *Journal of Informetrics*, 8(1), 59-70.

WORKING PAPERS

Lungeanu, A. & Contractor, N. S. "Assembly Mechanisms of Emerging Interdisciplinary Scientific Teams and Their Impact on Performance". Target: *Management Science*

Lungeanu, A., Park, P, DeChurch, L.A., & Contractor, N.S. "Deep Space Collaboration: Impact of Latency and Social Networks on Collaborative Work". Target: *Management Science*

Niler, A.A., Mesmer-Magnus J., **Lungeanu A.**, DeChurch, L.A., & Contractor, N.S. "The Impact of Social Context on Task Management in a NASA Space Analog". Target: *Journal of Experimental Psychology: Applied*

CURRENT PROJECTS

"Modeling Scientific Workforce Dynamics Using Social Network Analysis" (PI: Griffin Weber, Harvard Medical School)

"Crew Recommender for Effective Work in Space" (PI: Noshir Contractor, Northwestern U.)

"Crew Recommender for Effective Switching Tasks" (PI: Leslie DeChurch, Northwestern U.)

"Shared Cognitive Architectures for Long-term Exploration" (PI: Leslie DeChurch, Northwestern U.)

"Modelling the Scaling up of Family Planning in Kenya" (PI: Wolfgang Munar, George Washington U.)

CONFERENCES

2018

Alina Lungeanu, Patrick Park, Leslie A. DeChurch, and Noshir S. Contractor. *Deep Space Collaboration: Impact of Latency and Social Networks on Collaborative Work*. In A. Lungeanu (chair), Modeling Space Teams: Leveraging Computational Tools to Solve Long Hard Problems (About Teams). Symposium conducted at the *Interdisciplinary Network for Group Research (INGRoup)*, Bethesda, MA, 2018

Marlon Twyman, Jessica Mesmer-Magnus, Alina Lungeanu, Leslie A. DeChurch, and Noshir S. Contractor. *The Emergence and Development of Crew Shared Mental Models: An Agent-Based Model*. In A. Lungeanu (chair), Modeling Space Teams: Leveraging Computational Tools to Solve Long Hard Problems (About Teams). Symposium conducted at the *Interdisciplinary Network for Group Research (INGRoup)*, Bethesda, MA, 2018

William Antone, Zachary Gibson, Suzanne T. Bell, Alina Lungeanu, Leslie A. DeChurch, and Noshir S. Contractor. *Crew Recommender for Effective Work in Space (CREWS)*. In A. Lungeanu (chair), Modeling Space Teams: Leveraging Computational Tools to Solve Long Hard Problems (About Teams). Symposium conducted at the *Interdisciplinary Network for Group Research (INGRoup)*, Bethesda, MA, 2018

Alina Lungeanu, Patrick Park, Leslie A. DeChurch, and Noshir S. Contractor. Deep Space Collaboration: Impact of Latency and Social Networks on Collaborative Work. *NASA Human Research Program*

- Investigators' Workshop*, Galveston, TX, 2018, *INSNA / Sunbelt XXXVIII*, Utrecht, The Netherlands, 2018, *4th Annual International Conference on Computational Social Science (IC2S2)*, Evanston, IL, 2018
- Marlon Twyman, Jessica Mesmer-Magnus, Alina Lungeanu, Leslie A. DeChurch, and Noshir S. Contractor. The Emergence and Development of Crew Shared Mental Models: An Agent-Based Model. *NASA Human Research Program Investigators' Workshop*, Galveston, TX, 2018, *4th Annual International Conference on Computational Social Science (IC2S2)*, Evanston, IL, 2018
- 2017
- Griffin Weber, Noshir Contractor, Shuba Gopal, Alina Lungeanu and Yulia Tyshchuk. "Can cross-university collaboration be facilitated by establishing institutes to promote team science?", *Science of Team Science Conference (SciTS)*, Clearwater Beach, FL, 2017
- Griffin Weber, Noshir Contractor, Alina Lungeanu and Yulia Tyshchuk. "A framework for analyzing funded and non-funded teams through each phase of a research grant competition", *Science of Team Science Conference (SciTS)*, Clearwater Beach, FL, 2017
- Alina Lungeanu, Yuan-Chih Fu, Liang Zhang and David Baker, "Global Networks of Science and Future Science Policy: The Role of U.S. Research Universities in Collaboration and Internationalization of New Scientific Knowledge", *1st North American Social Networks (NASN)*, Washington, DC, 2017
- 2016
- Alina Lungeanu and Noshir Contractor. "Assembly Mechanisms of Emerging Interdisciplinary Scientific Teams and Their Impact on Performance", *Academy of Management (AoM)*, Anaheim, CA, 2016
- Alina Lungeanu. "Team Assembly in New Emerging Fields: A Computational Modelling Approach", *Modeling Science, Technology & Innovation Conference (ModSTI)*, Washington, DC, 2016
- Alina Lungeanu, Denis Agniel, Kun Lei, Griffin Weber, and Noshir Contractor. "Modeling the Dynamics of Collaboration in the Scientific Workforce: The Case of Clinical and Translational Science Awards Pilot Grant Program", *Science of Team Science Conference (SciTS)*, Phoenix, AZ, 2016
- Alina Lungeanu, Diane Felmlee, and Derek Kreager. "Online Dating Preferences: Two-Mode versus One-Mode ERGM Network Analysis", *INSNA / Sunbelt XXXVI*, Newport Beach, CA, 2016
- 2015
- Alina Lungeanu, Sophia Sullivan, Uri Wilensky. U, and Noshir Contractor. "A computational model of team assembly in emerging scientific fields", *Winter Simulation Conference*, Huntington Beach, CA, 2015
- Alina Lungeanu, Sophia Sullivan, and Noshir Contractor. "Understanding the Assembly of Interdisciplinary Teams in an Emerging Scientific Field", *Interdisciplinary Network for Group Research Conference (INGRoup)*, Pittsburg, PA, 2015
- Alina Lungeanu, Sophia Sullivan, and Noshir Contractor. "Team assembly in new scientific fields: A computational modelling approach", *Computational Social Science Summit*, Evanston, IL, 2015
- Alina Lungeanu, Wynne Norton, & Noshir Contractor. "Collaboration and Advice Networks among Dissemination and Implementation Researchers: Implications for Strategic Initiatives to Advance the Science", *Science of Team Science Conference (SciTS)*, Bethesda, MD, 2015
- 2014
- Yun Huang, Chuang Zhang, Maryam Fazel-Zarandi, Hugh Devlin, Alina Lungeanu, Stanley Wasserman, and Noshir Contractor. (2014) "Network Imputation in Predicting Researcher Collaboration", *5th Annual VIVO Conference*, Austin, TX, 2014

Alina Lungeanu, Sophia Sullivan, and Noshir Contractor. "Compositional, relational and ecosystem influences on team assembly in emerging scientific fields", *INSNA / Sunbelt XXXIV*, St. Petersburg, FL, 2014, *5th Annual International Science of Team Science Conference (SciTS)*, Austin, TX, 2014

Sophia Sullivan, Alina Lungeanu, Leslie DeChurch, and Noshir Contractor. "An Agent-Based Model (ABM) of the Emergence of Leadership for Innovation in Multiteam Systems", *Society for Industrial and Organizational Psychology (SIOP) Annual Conference*, Honolulu, HI, 2014

2013

Alina Lungeanu, Sophia Sullivan, and Noshir Contractor. "Formation and evolution of teams in new scientific fields: A hybrid model approach", *INFORMS*, Minneapolis, MN, 2013

Sophia Sullivan, Alina Lungeanu, Leslie DeChurch, and Noshir Contractor. "Modeling the emergence of leadership reliance networks", *INFORMS*, Minneapolis, MN, 2013

Alina Lungeanu, Noshir Contractor, Dorothy Carter, and Leslie DeChurch. *A hypergraph approach to understanding the assembly of scientific research teams*. In D. Carter (chair), *Teams on the hyper-edge: Using hypergraph network methodology to understand teams*. Symposium conducted at the *Interdisciplinary Network for Group Research (INGROUP)*, Atlanta, GA, 2013

Julie M Birkholz, Alina Lungeanu, Rena Bakhshi, Peter Groenewegen, Maarten van Steen, and Noshir Contractor. "Methodological specifications for application of the mean-field model for large scale social networks", *INSNA / Sunbelt XXXIII*, Hamburg, Germany, 2013

Alina Lungeanu and Noshir Contractor. "The Effects of Diversity on Collaborative Innovative Networks: The Case of the Oncofertility Scientific Subfield", *Organizational Communication Mini Conference*, Norman, OK, 2012 (Poster), *International Communication Association (ICA)*, London, 2013

Sophia Sullivan, Alina Lungeanu, Leslie DeChurch, and Noshir Contractor. "Leading innovation over space and time", *ARS'13 International Workshop*, Rome, Italy, 2013

2012

Alina Lungeanu, Yun Huang, and Noshir Contractor. "A network perspective on success in collaboration: Stop citing me for our own good?", *Organizational Communication Mini Conference*, Columbia, MO, 2011, *INSNA / Sunbelt XXXII*, Redondo Beach, CA, 2012, and *Academy of Management (AoM)*, Boston, MA, 2012

Alina Lungeanu, Toshio Murase, Dorothy Carter, and Noshir Contractor. "A hypergraph approach to understanding the assembly of scientific research teams", *INSNA / Sunbelt XXXII*, Redondo Beach, CA, 2012

Mengxiao Zhu, Alina Lungeanu, and Noshir Contractor. "Growth of new scientific fields: The case of oncofertility", *INSNA / Sunbelt XXXII*, Redondo Beach, CA, 2012

Yun Huang, Chuang Zhang, Maryam Fazel-Zarandi, Hugh Devlin, Alina Lungeanu, Stanley Wasserman, and Noshir Contractor. "Comparing efficacy of link prediction models for expert recommender system", *INSNA / Sunbelt XXXII*, Redondo Beach, CA, 2012

Curie Chang, Alina Lungeanu, Brian Keegan, Joe Gilborne, and Noshir Contractor, "Multidimensional networks in crowdsourced collaboration", *INSNA / Sunbelt XXXII*, Redondo Beach, CA, 2012

2011

Yun Huang, Alina Lungeanu, Chuang Zhang, Mike Stringer, Jonathan Haynes, Dan McClary, and Xiaohan Zen "Structured and Relational Information Extraction", *Mining the Digital Traces of Science International Workshop*, France, 2011

❖ *Winner of the data pre-processing challenge*

WORKSHOPS / SYMPOSIA

Alina Lungeanu (chair). *Modeling Space Teams: Leveraging Computational Tools to Solve Long Hard Problems (About Teams)*. Symposium conducted at the Interdisciplinary Network for Group Research (INGRoup), Bethesda, MA, 2018

Meikuan Huang, **Alina Lungeanu**, York Yao, and Noshir Contractor (co-organizers and instructors). *Network Data Collection, Analysis, and Visualization via C-IKNOW*. Workshop conducted at INSNA/Sunbelt XXXI, St. Petersburg, FL, 2011

INVITED PRESENTATIONS

2017 Purdue University, Brian Lamb School of Communication
Pennsylvania State University, College of Information Sciences and Technology

2016 University of Michigan, Institute for Research on Innovation and Science

2015 Pennsylvania State University, Methodology Center
Pennsylvania State University, Population Research Institute

TEACHING EXPERIENCE

Teaching Assistant, Northwestern University - Graduate Class
Social Network Analysis 2012 (Industrial Engineering & Management Sciences, Kellogg School of Management, and School of Communication)

Guest Instructor, Pennsylvania State University - Graduate Class
Methods in Social Network Analysis, 2015 & 2016 (Sociology Department)

PROFESSIONAL AFFILIATIONS

International Network for Social Network Analysis, Science of Team Science, Interdisciplinary Network for Group Research, International Communication Association, National Communication Association

NON-ACADEMIC POSITIONS

Kepler-Rominfo SA Romania (2001-2007)
IT Consultant / Project Manager

MGI Romania, METRO Group Information Technology Germany (2006)
IT Specialist / Solution Architect