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EDUCATION

Ph.D., Communication, University of Southern California, 1987.

M. A., Communication, University of Southern California, 1986.

B. Tech. Electrical Engineering, Indian Institute of Technology, Madras (Chennai), 1983.

ACADEMIC APPOINTMENTS

2007–present Jane S. & William J. White Professor of Behavioral Sciences
 Departments of Communication Studies, Industrial Engineering and
 Management Sciences, and Management and Organizations
 Northwestern University

2001-2007 Professor of Speech Communication
 University of Illinois at Urbana-Champaign

1993-2001 Associate Professor of Speech Communication
 University of Illinois at Urbana-Champaign

1987-1993 Assistant Professor of Speech Communication
 University of Illinois at Urbana-Champaign

HONORS AND AWARDS

Distinguished and Career Recognition

Fellow, American Association for the Advancement of Science (AAAS), 2019.

Fellow, The Association for Computing Machinery (ACM), 2019.

Lifetime Service Award, Organizational Communication and Information Systems Division,
Academy of Management, 2019.

Distinguished Speaker Award, Organizational Communication and Information Systems Division,
Academy of Management, 2019.

Distinguished Alumnus Award, Indian Institute of Technology, Madras, 2018.

Fellow, International Communication Association, 2015.

Distinguished Scholar Award, National Communication Association, 2014.

Outstanding Member Award, Organizational Communication Division, International Communication Association, 2000.

Institute Gold Medal, Bachelor of Technology, Indian Institute of Technology, Madras, India, 1983.

Article and Book Awards

Article of the Year Award (2015), Communication Theory and Methodology Division, Association for Education in Journalism and Mass Communication, for Foucault Welles, B., Vashevko, A., Bennett, N., & Contractor, N. (2014). Dynamic models of communication in an online friendship network. *Communication Methods and Measures*, 8(4), 223-243.

Outstanding Scholarly Edited Book Award (2014), Organizational Communication Division, National Communication Association, for Shumate, M., & Contractor, N. (2014). Emergence of multidimensional social networks. In L.L. Putnam & D. Mumby (Eds.), *Handbook of Organizational Communication* (pp. 451-474). Thousand Oaks, CA: Sage.

Ernest Bormann Research Book Award (2013), Group Communication Division, National Communication Association, for Contractor, N., & Su, C. (2012). Understanding groups from a network perspective. In A. Hollingshead & M. S. Poole (Eds.), *Research Methods for Studying Groups and Teams: A Guide to Approaches, Tools, and Technologies* (pp. 284-310). New York: Taylor & Francis/Routledge.

Article of the Year Award (2012), Organizational Communication Division, National Communication Association, for "Whitbred, R., Fonti, F., Steglich, C., & Contractor, N. (2011). From microactions to macrostructure and back: A structural approach to the evolution of organizational networks. *Human Communication Research*, 37(3), 404-433.

Ernest Bormann Research Award (2006), Group Communication Division, National Communication Association for Katz, N., Lazer, D., Arrow, H., & Contractor, N. (2005). The network perspective on small groups: Theory and research. In Poole, M. S. & Hollingshead, A.B. (Eds.), *Theories of Small Groups: Interdisciplinary Perspectives* (pp. 277-312). Newbury Park, CA: Sage.

Outstanding Book Award (2003), Organizational Communication Division, National Communication Association, for Monge, P. R., & Contractor, N. (2003). *Theories of communication networks*. New York: Oxford University Press.

Top Paper Awards

Honorable Mention Award (2020) for “How displaying team diversity information influences preferences for heterophily” in *Proceedings of the 2020 ACM Conference on Human Factors in Computing Systems (CHI’20)*.

Top 4 Paper Award (2017), Organizational Communication Division, International Communication Association, for Fu, J. S., Shumate, M., & Contractor, N. S. (2017, May). *Collective innovation adoption across interorganizational systems: Organizational boundary, social networks, and decision-making status*. Paper presented at the 67th Annual Conference of the International Communication Association, San Diego, CA.

Top Paper Award (2016), for Wang, M., Huang, Y., Contractor, N., Fu, Y., & Chen, W. (2016, May). *A network approach for understanding and analyzing product co-consideration relations in engineering design*. Paper presented at the 14th International Design Conference, Cavtat-Dubrovnik, Croatia.

Top Paper Award (2015), for Murase, T., Asencio, R., McDonald, J., Poole, M. S., DeChurch, L. A., & Contractor, N. S. (2015, November). *The effect of entrainment of group processes on multiteam system effectiveness*. Paper presented at the Annual Convention of the National Communication Association (NCA), Las Vegas.

Best Conference Poster Award (2015), for Asencio, R., Huang, Y., DeChurch, L., Contractor, N., Sawant, A., & Murase, T. (2015, July). *The MyDreamTeam builder: A recommender system for assembling & enabling effective teams*. Poster presented at the Interdisciplinary Network Conference for Group Research (INGRoup) Annual Conference, Pittsburgh, PA.

Top Paper Award (2013), for “McCusker, J. P. , Shaikh, A., Contractor, N., Courtney, P., Lee, J., Morgan, G., Tatalovich, Z., Thomas, C., & L. McGuinness, D. L. (2013). Towards next generation health data exploration: A data cube-based investigation into population statistics for tobacco IT innovation. *Proceedings of the Hawaii International Conference On System Sciences (HICSS)*.

Top Paper Award (2011), for Keegan, B., Ahmed, M. A., Williams, D., Srivastava, J., & Contractor, N. (2011, June). *Sic transit gloria mundi virtuali? Promise and peril in the computational social science of clandestine organizing*, ACM Web Science Conference 2011, Koblenz, Germany.

Top 3 Paper Award (2011), Organizational Communication Division, International Communication Association, for Huang, M., Barbour, J., Su, C., & Contractor, N. S. (2010, June). *Why would you save your files in a group folder? A multilevel analysis of contextual influences on information provision to work group digital databases*. 60th Annual Conference of the International Communication Association, Singapore.

Carolyn Dexter Paper Award Finalist (2010), for Huang, M., Huang, Y., Ognyanova, K., Margolin, D., Shen, C., & Contractor, N. S. (2010, August). *The effects of diversity and repeat collaboration on team performance in distributed nanoscientist teams*, Academy of Management Annual Conference, Montreal, Canada.

Top Paper Award (2009), for Wang, J., & Contractor, N. (2009, July). *Knowledge seeking and provision in work teams across multiple knowledge areas: A network formulation to test and extend transactive memory theory*, Fourth Annual INGRoup Conference, Colorado Springs, CO.

Top 3 Paper Award (2008), for Whitbred, R., Fonti, F., Contractor, N., & Steglich, C. (2008, November). *From micro-actions to macro-structure: A structural approach to the evolution of organizational networks*. 94th Annual Convention of the National Communication Association (NCA), San Diego, CA.

Top 3 Paper Award (2000), Organizational Communication Division, International Communication Association, for Contractor, N., Wasserman, S., & Faust, K. (2000, June). *Testing multi-level, multi-theoretical hypotheses about networks in 21st century organizational forms: An analytic framework and empirical example*. International Communication Association annual convention, Acapulco, Mexico.

Top 3 Paper Award (1998), International Communication Association, for Contractor, N. S., Whitbred, R., Fonti, F., Hyatt, A., Jones, P., & O'Keefe, B. (1998, July). *Self-organizing communication networks in organizations: Validation of a computational model using exogenous and endogenous theoretical mechanisms*. Paper presented at the meeting of the International Communication Association, Jerusalem, Israel.

Top 3 Paper Award (1997), for Hyatt, A., Contractor, N., & Jones, P. M. (1997, May). *Computational organizational network modeling: Strategies and an example*. Paper presented at the meeting of the International Communication Association, Montreal, Canada.

Top 3 Paper Award (1988), Organizational Communication Division, International Communication Association, for Eisenberg, E. M., Contractor, N. S., & Monge, P. R. (1988). *Semantic networks in organizations*. Paper presented at the Annual Conference of the International Communication Association, New Orleans, LA.

Advisee Dissertation Awards

Dissertation Adviser, Jacqueline Ng, Best Dissertation Award Finalist, Technology & Innovation Management Division, Academy of Management, 2019.

Dissertation Adviser, Aaron Schechter, Hackman Outstanding Dissertation Award, Interdisciplinary Network of Group Research (INGRoup), 2018.

Dissertation Adviser, Jacqueline Ng, Finalist at the Institute for Operations Research and Management Science (INFORMS) Organization Science Dissertation Proposal Competition, 2017.

Dissertation Adviser, Alina Lungeanu, Graduate Dissertation Award, Northwestern University School of Communication, 2016.

Dissertation Adviser, Sophia Sullivan, Finalist, Alvah H. Chapman Jr. Outstanding Dissertation Award, Network of Leadership Scholars of the Academy of Management, 2015.

Dissertation Adviser, Mengxiao Zhu, Honorable Mention, Richard Hackman Dissertation Award, Interdisciplinary Network for Group Research (INGRoup), 2014.

Dissertation Adviser, Brooke Foucault-Welles, Special Mention Recognition for Dissertation, Communication & Technology Division, International Communication Association, 2013.

Dissertation Co-Adviser, David Huffaker, Winner of the Dordick Dissertation Award, Communication & Technology Division, International Communication Association, 2010.

Dissertation Adviser, Edward Palazzolo, Honorable Mention, Redding Dissertation Award Competition, Organizational Communication Division, International Communication Association, 2004.

PUBLICATIONS

Books

Ahmad, M. A., Shen, C., Srivastava, J., and Contractor, N. S. (Eds.). (2014). [Predicting real world behaviors from virtual worlds data](#). Cham: Springer International Publishing.

Monge, P. R., & Contractor, N. (2003). [Theories of communication networks](#). New York: Oxford University Press.

Refereed Journal Articles

Mell, J. N., DeChurch, L., Contractor, N., & Leenders, R. (2020). [Identity asymmetries: An experimental investigation of social identity and information exchange in multiteam systems](#). *Academy of Management Journal*. <https://doi.org/10.5465/amj.2018.0325>

Contractor, N. (2019). [A “modest proposal” on writing that is not modest enough](#). [Forum commentary on the article “On writing in communication and media studies” by Boczkowski P. & M. Delli Carpini]. *International Journal of Communication*, 14, Forum 432-435.

- Hogan, B., Janulis, P., Phillips II, G., Melville, J., Mustanski, B., Contractor, N., & Birkett, M. (2019). [Assessing the stability of ego-centered networks over time using the digital participant-aided sociogram tool Network Canvas](#). *Network Science*, 1-19. doi:10.1017/nws.2019.27
- Hilbert, M., Barnett, G., Blumenstock, J., Contractor, N., Diesner, J., Frey, S., ... Zhu, J. J. H. (2019). [Computational Communication Science: A Methodological Catalyzer for a Maturing Discipline](#). *International Journal of Communication*, 13(0), 3912-3934.
- Larson, L., Wojcik, H., Gokhman, I., DeChurch, L., Bell, S., & Contractor, N. (2019). [Team performance in space crews: Houston, we have a teamwork problem](#). *Acta Astronautica*, 161, 108–114.
- Kim, M. J., Lee, C., & Contractor, N. S. (2019). [Seniors' usage of mobile social network sites: Applying theories of innovation diffusion and uses and gratifications](#). *Computers in Human Behavior*, 90, 60-73. doi:10.1016/j.chb.2018.08.046.
- Gómez-Zar4, D., Andreoli, S., DeChurch, L. A., & Contractor, N. S. (2019). [Descubriendo colaboradores en l4nea: Formando equipos interdisciplinarios en una universidad argentina](#). *Cuadernos.info*, 0(44), 21–41.
- Mukherjee, S., Huang, Y., Neidhardt, J., Uzzi, B., Contractor, N., (2019). [Prior shared success predicts victory in team competitions](#). *Nature Human Behaviour*, 3, 74-81. doi:10.1038/s41562-018-0460-y.
- Kim, M. J., Lee, C.-K., & Contractor, N. S. (2019). [Seniors' usage of mobile social network sites: Applying theories of innovation diffusion and uses and gratifications](#). *Computers in Human Behavior*, 90, 60–73. doi:10.1016/j.chb.2018.08.046
- Leonardi, P., & Contractor, N. S. (2018, Nov-Dec). [Better people analytics: Measure who they know, not just who they are](#). *Harvard Business Review*, 70–81.
- Lungeanu, A., Carter, S. 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. doi:10.1080/19312458.2018.1430756
- Sha, Z., Huang, Y., Fu, J. S., Wang, M., Fu, Y., Contractor, N., & Chen, W. (2018). [A network-based approach to modeling and predicting product co-consideration relations](#). *Complexity*, 2018(3), 1–14. doi:10.1155/2018/2753638
- Hendler, J. A., Hall, W., & Contractor, N. (2018). [Web science: Now more than ever](#). *IEEE Computer*, 51(6), 12–17. doi:10.1109/MC.2018.2701637

- Schechter, A., Pilny, A., Leung, A., Poole, M. S., & Contractor, N. (2017). [Step by step: Capturing the dynamics of work team process through relational event sequences](#). *Journal of Organizational Behavior*, 2017, 1–19. doi:10.1002/job.2247.
- Wax, A., DeChurch, L., & Contractor, N. (2017). [Self-organizing into winning teams: Understanding the mechanisms that drive successful collaborations](#). *Small group research*, 48(6), 665-718. doi:10.1177/1046496417724209
- Norton, W. E., Lungeanu, A., Chambers, D. A., & Contractor, N. (2017). [Mapping the growing discipline of dissemination and implementation science in health](#). *Scientometrics*, 112(3), 1367–1390. doi:10.1007/s11192-017-2455-2.
- Wang, M., Chen, W., Huang, Y., Contractor, N. S. and Fu, Y. (2016). [Modeling customer preferences using multidimensional network analysis in engineering design](#). *Design Science*, 2, 2012-2028. doi:10.1017/dsj.2016.11.
- Pilny, A., Schechter, A., Poole, M. S., & Contractor, N. (2016). [An illustration of the relational event model to analyze group interaction processes](#). *Group Dynamics: Theory, Research, and Practice: Special Issue on Statistical Methods*, 20(3), 181-195. doi:10.1037/gdn0000054.
- Ghasemian, F., Zamanifar, K., Ghasem-Aqaei, N., & Contractor, N. (2016). [Toward a better scientific collaboration success prediction model through the feature space expansion](#). *Scientometrics*, 108(2), 777-801. doi: 10.1007/s11192-016-1999-x
- Leenders, R. T. A. J., Contractor, N. S., & DeChurch, L. A. (2016). [Once upon a time: Understanding team processes as relational event networks](#). *Organizational Psychology Review*, 6(1), 92–115. doi: 10.1177/204138661557831
- Zhang, C., Phang, C. W., Zeng, X., Wang, X., Xu, Y., Huang, Y., & Contractor, N. (2015). [Circadian rhythms in socializing propensity](#). *PLoS ONE*, 10(9), e0136325. doi: 10.1371/journal.pone.0136325
- Carter, D. R., Asencio, R., Wax, A., DeChurch, L. A., & Contractor, N. S. (2015). [Little teams, big data: Big data provides new opportunities for teams theory](#). *Industrial and Organizational Psychology*, 8(4), 550-555. doi: 10.1017/iop.2015.82
- Tiropanis, T., Hall, W., Crowcroft, J., Contractor, N., & Tassioulas, L. (2015). [Network science, web science and internet science: Comparing interdisciplinary areas](#). *Communications of the ACM*, 58(8), 76-82. doi:10.1145/2699416
- Foucault Welles, B., & Contractor, N. S. (2015). [Individual motivations and network effects: A multi-level analysis of the structure of online social relationships](#). *Annals of the American Academy of Political and Social Science*, 659, 180-190. doi: 10.1177/0002716214565755

- Carter, D., DeChurch, L. A., Braun, M., & Contractor, N. (2015). [Social network approaches to leadership: An integrative conceptual review](#). *Journal of Applied Psychology*, *100*(3), 597.
- Sullivan, S. D., Lungeanu, A., DeChurch, L. A., & Contractor, N. S. (2015). [Space, time, and the development of shared leadership networks in multiteam systems](#). *Network Science*, *3*(1), 124-155. doi:10.1017/nws.2015.7
- Contractor, N. S., & DeChurch, L. A. (2014). [Integrating social networks and human social motives to achieve social influence at scale](#). *Proceedings of the National Academy of Sciences*, *111*(Supplement 4), 13650–13657.
- Foucault Welles, B., Vashevko, A., Bennett, N., & Contractor, N. (2014). [Dynamic models of communication in an online friendship network](#). *Communication Methods and Measures*, *8*(4), 223-243. doi:10.1080/19312458.2014.967843
- Lungeanu, A., & Contractor, N. S. (2014). [The effects of diversity and network ties on innovations: The emergence of a new scientific field](#). *American Behavioral Scientist*, *59*(5), 548-564. doi:10.1177/0002764214556804
- Foucault Welles, B., Rouse, T., Merrill, N., & Contractor, N. (2014). [Virtually friends: An exploration of friendship claims and expectations in immersive virtual worlds](#). *Journal for Virtual Worlds Research*, *7*(2), 1-15.
- 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.
- Tiropanis, T., Hall, W., Shadbolt, N., De Roure, D., Contractor, N., & Hendler, J. (2013). [The Web Science Observatory](#). *Intelligent Systems, IEEE*, *28*(2), 100–104. doi:10.1109/MIS.2013.50
- O’Hara, K., Contractor, N. S., Hall, W., Hendler, J. A., & Shadbolt, N. (2013). [Web Science: Understanding the emergence of macro-level features on the World Wide Web](#). *Foundations and Trends® in Web Science*, *4*(2-3), 103-267.
- Huang, M., Barbour, J., Su, C., & Contractor, N. (2013). [Why do group members provide information to digital knowledge repositories? A multilevel application of transactive memory theory](#). *Journal of the American Society for Information Science and Technology*, *64*(3), 540-557.
- Contractor, N. (2013). [Some assembly required: Leveraging Web science to understand and enable team assembly](#). *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, *371*(1987), 20120385–20120385. doi:10.1098/rsta.2012.0385

- Zhu, M., Huang, Y., & Contractor, N. S. (2013). [Motivations for self-assembling into project teams](#). *Social Networks*, 35(2), 251–264.
- Huang, Y., Shen, C., & Contractor, N. (2013). [Distance matters: Exploring proximity and homophily in virtual world networks](#). *Decision Support Systems*, 55(4), 969–977.
- Keegan, B., Gergle, D., & Contractor, N. (2013). [Hot off the Wiki: Structures and dynamics of Wikipedia's coverage of breaking news events](#). *American Behavioral Scientist*, 57(5), 595-622.
- Contractor, N. S., DeChurch, L. A., Carson, J. B., Carter, D., & Keegan, B. (2012). [The topology of collective leadership](#). *The Leadership Quarterly*, 23(6), 994-1011.
- Contractor, N. S., Whitbred, R. C., Fonti, F., & Steglich, C. (2012). [Understanding the ties that bind: A longitudinal investigation of the evolution of a communication network](#). *Western Journal of Communication*, 76(4), 333-357. doi: 10.1080/10570314.2012.674172
- Schatz, B., Marsh, C., Gustafson, D., Patrick, K., Krishnan, J., Kumar, S., & Contractor, N. (2012). [Research challenges in measuring data for population health to enable predictive modeling for improving healthcare](#). *ACM SIGHIT Record*, 2(2), 36–41.
- Mathur, S., Poole, M. S., Peña-Mora, F., Hasegawa-Johnson, M., & Contractor, N. (2012). [Detecting interaction links in a collaborating group using manually annotated data](#). *Social Networks*, 34(4), 515–526.
- Murase, T., Doty, D., Wax, A., DeChurch, L. A., & Contractor, N. S. (2012). [Teams are changing, time to “think networks.”](#) *Industrial and Organizational Psychology: Perspectives on Science & Practice*, 5, 41-44.
- van de Wijngaert, L., Bouwman, H., & Contractor, N. (2012). [A network approach toward literature review](#). *Quality & Quantity*, 48(2), 623–643.
- Zhang, Z., Zhang, Z., Jain, R., Zhuang, Y., Contractor, N., ... Hauptmann, A. G. (2012). [Societally connected multimedia across cultures](#). *Journal of Zhejiang University Science C*, 13(12), 875–880. doi:10.1631/jzus.C1200279
- Keegan, B., Ahmad, M. A., Williams, D., Srivastava, J., & Contractor, N. (2011). [What can gold farmers teach us about criminal networks?](#) *XRDS: Crossroads, The ACM Magazine for Students*, 17(3), pp. 11-15.
- Williams, D., Contractor, N., Poole, M. S., Srivastava, J., & Cai, D. (2011). [The virtual worlds exploratorium: Using large-scale data and computational techniques for communication research](#). *Communication Methods and Measures*, 5(2), 163-180.

- Wang, J., Huffaker, D. A., Treem, J. W., Fullerton, L., Ahmad, M. A., Williams, D., Poole, M. S., & Contractor, N. (2011). [Focused on the prize: Characteristics of experts in massive multiplayer online games](#). *First Monday*, 16(8).
- Whitbred, R., Fonti, F., Steglich, C., & Contractor, N. (2011). [From microactions to macrostructure and back: A structural approach to the evolution of organizational networks](#). *Human Communication Research*, 37(3), 404-433.
- Castells, M., Monge, P., & Contractor, N. (2011). [Prologue to the special section: Network multidimensionality in the digital age](#). *International Journal of Communication*, 5, 6.
- Contractor, N., Monge, P., & Leonardi, P. M. (2011). [Multidimensional networks and the dynamics of sociomateriality: Bringing technology inside the network](#). *International Journal of Communication*, 5, 39.
- Su, C., & Contractor, N. (2011). [A multidimensional network approach to studying team members' information seeking from human and digital knowledge sources in consulting firms](#). *Journal of the American Society for Information Science and Technology*, 62(7), 1257-1275.
- Falk-Krzesinski, H. J., Contractor, N., Fiore, S. M., Hall, K. L., Kane, C., Keyton, J., Klein, J., Spring, B., Stokols, D., & Trochim, W. (2011). [Mapping a research agenda for the science of team science](#). *Research Evaluation*, 20(2), 145-158.
- Falk-Krzesinski, H. J., Börner, K., Contractor, N., Fiore, S. M., Hall, K. L., Keyton, J., Spring, B., Stokols, D., Trochim, W., & Uzzi, B. (2010). [Advancing the science of team science](#). *Clinical and Translational Sciences*, 3(5), 263-266.
- Börner, K., Contractor, N., Falk-Krzesinski, H. J., Fiore, S. M., Hall, K. L., Keyton, J., Spring, B., Stokols, D., Trochim, W., & Uzzi, B. (2010). [A multi-level systems perspective for the science of team science](#). *Science Translational Medicine*, 2(49), 24-49. DOI: 10.1126/scitranslmed.3001399
- Tian, Y., Srivastava, J., Huang, T., & Contractor, N. (2010). [Social multimedia computing](#). *Computer*, 43(8), 27-36.
- Mahmassani, H. S., Chen, R. B., Huang, Y., Williams, D., & Contractor, N. (2010). [Time to play? Activity engagement in multiplayer online role-playing games](#). *Transportation Research Record: Journal of the Transportation Research Board*, 2157(1), 129-137.
- Su, C., Huang, M., & Contractor, N. (2010). [Understanding the structures, antecedents and outcomes of organisational learning and knowledge transfer: A multi-theoretical and multilevel network analysis](#). *European Journal of International Management*, 4(6), 576-601.

- Yuan, C., Fulk, J., Monge, P., & Contractor, N. (2010). [Expertise directory development, shared task interdependence, and strength of communication network ties as multilevel predictors of expertise exchange in transactive memory work groups](#). *Communication Research*, 37(1), 20-47. doi: 10.1177/009365020351469.
- Varda, D., Forgette, R., Banks, D., & Contractor, N. (2009). [Social network methodology in the study of disasters: Issues and insights prompted by post-Katrina research](#). *Population Research & Policy Review*, 28(1), 11-29.
- Contractor, N. (2009). [The emergence of multidimensional networks](#). *Journal of Computer-Mediated Communication*, 14(3), 743-747.
- Lazer, D., Pentland, A., Adamic, L., Aral, S., Barabasi, A. L., Brewer, D., Christakis, N., Contractor, N., Fowler, J., Gutman, M., Jebara, T., King, G., Macy, M., Roy, D., & Van Alstyne, M. (2009). [Life in the network: The coming age of computational social science](#), *Science*, 323 (5915), 721-723.
- Contractor, N., Wasserman, S., & Faust, K. (2006). [Testing multitheoretical, multilevel hypotheses about organizational networks: An analytic framework and empirical example](#). *Academy of Management Review*, 31(3), 681-703.
- Palazzolo, E. T., Serb, D., She, Y., Su, C., & Contractor, N. S. (2006). [Coevolution of communication and knowledge networks in transactive memory systems: Using computational models for theoretical development](#). *Communication Theory*, 16(2), 223-250.
- Katz, N., Lazer, D., Arrow, H., & Contractor, N. (2004). [Network theory and small groups](#). *Small Group Research*, 35(3), 307-332.
- Contractor, N. S., & Monge, P. R. (2002). [Managing knowledge networks](#). *Management Communication Quarterly*, 16(2), 249-258.
- Fesenmaier, J., & Contractor, N. (2001). [The evolution of knowledge networks: An example for rural development](#). *The Journal of the Community Development Society*, 32(1), 160-175.
- Pollock, T., Whitbred, R. A., & Contractor, N. (2000). [Social information processing and job characteristics: A simultaneous test of two theories with implications for job satisfaction](#). *Human Communication Research*, 26(2), 292-330.
- Contractor, N. S. (1999). [Self-organizing systems research in the social sciences: Reconciling the metaphors and the models](#). *Management Communication Quarterly*, 13(1), 154-166.
- Heald, M., Contractor, N., Koehly, L. M., & Wasserman, S. (1998). [Formal and emergent predictors of coworkers' perceptual congruence on an organization's social structure](#). *Human Communication Research*, 24(4), 536-563.

- Ehrlich, M. C., & Contractor, N. S. (1998). ["Shock" meets "community service": J.C. Corcoran at KMOX](#). *Journal of Radio Studies* 5(1), 22-35.
- Hyatt, A., Contractor, N., & Jones, P. M. (1997). [Computational organizational network modeling: Strategies and an example](#). *Computational and Mathematical Organizational Theory*, 2(4), 285-300.
- Contractor, N. S., Seibold, D. R., & Heller, M. A. (1996). [Interactional influence in the structuring of media use in groups: Influence of members' perceptions of group decision support system use](#). *Human Communication Research*, 22(4), 451-481.
- Contractor, N. S., & Seibold, D. R. (1993). [Theoretical frameworks for the study of structuring processes in group decision support systems: Adaptive structuration theory and self-organizing systems theory](#). *Human Communication Research*, 19(4), 528-563.
- Contractor, N., & Ehrlich, M. (1993). [Strategic ambiguity in the birth of a loosely coupled organization: The case of a \\$50-million experiment](#). *Management Communication Quarterly*, 6(3), 251-281.
- Michaelson, A., & Contractor, N. (1992). [Structural position and perceived similarity](#). *Social Psychology Quarterly*, 55(3), 300-310.
- Monge, P. R., Cozzens, M. D., & Contractor, N. S. (1992). [Communication and motivational predictors of the dynamics of organizational innovation](#). *Organization Science*, 3(2), 250-274.
- Waterman, D., Schechter, R., & Contractor, N. (1991). [Overcoming barriers to the live arts: Can the media compensate?](#) *Journal of Cultural Economics*, 15(2), 19-40.
- Rice, R., & Contractor, N. S. (1990). [Conceptualizing effects of office information systems: A methodology and application for the study of alpha, beta and gamma change](#). *Decision Science*, 21(2), 301-317.
- Contractor, N. S., Singhal, A., & Rogers, E. M. (1988). [Metatheoretical perspectives on satellite television and development in India](#). *Journal of Broadcasting & Electronic Media*, 32(2), 129-148.
- Cozzens, M. D., & Contractor, N. S. (1987). [The effect of conflicting information on media skepticism](#). *Communication Research*, 14(4), 437-451.
- Contractor, N. S., Fulk, J., Monge, P. R., & Singhal, A. (1986). [Cultural assumptions that influence the implementation of communication technologies](#). *Vikalpa*, 11(4), 287-300.

Book Chapters

- Contractor, N. (2019). [How Can Computational Social Science Motivate the Development of Theories, Data, and Methods to Advance Our Understanding of Communication and Organizational Dynamics](https://doi.org/10.1093/oxfordhb/9780190460518.013.7). In: Foucault Welles, B. & González-Bailón, S. (Eds.), *The Oxford Handbook of Networked Communication*.
<https://doi.org/10.1093/oxfordhb/9780190460518.013.7>
- DeChurch, L. A., Bufton, G. M., Kay, S. A., Velez, C. V., & Contractor, N. S. (2019). Organizational learning and multiteam systems. In J. L. Argote & J. Levine (Eds.), *Handbook of Group and Organizational Learning*, Oxford University Press.
- Foote, J., & Contractor, N. (2018). [The behavior and network position of peer production founders](#). In *Transforming Digital Worlds* (Vol. 10766, pp. 99–106). Cham: Springer International Publishing.
- Schechter A., Contractor N. (2017) [Understanding and assessing collaborative processes through relational events](#). In: von Davier A., Zhu M., Kyllonen P. (Eds.), *Innovative Assessment of Collaboration. Methodology of Educational Measurement and Assessment* (pp. 223-231). Cham: Springer International Publishing.
- Contractor, N., & Forbush, E. (2017). [Networks](#). In C. R. Scott & L. K. Lewis, (Eds.), *The international encyclopedia of organizational communication*, (Vol. 22, pp. 1–25). Hoboken, NJ, USA: John Wiley & Sons, Inc. DOI: 10.1002/9781118955567
- Zhu, M., Kuskova, V., Wasserman, S., & Contractor, N. (2016). [Correspondence analysis of multirelational multilevel networks](#). In E. Lazega & T.A.B. Snijders (Eds.), *Multilevel Network Analysis for the Social Sciences* (pp. 145-172). Cham: Springer International Publishing.
- Huang, Y., Weng, C., Lee, B., & Contractor, N. (2015). [Semantic and social spaces: Identifying keyword similarity with relations](#). In E. Bertino & S. Matei (Eds.), *Roles, Trust, and Reputation in Social Media Knowledge Markets* (pp. 47–55). Computational Social Science Series. Cham: Springer International Publishing.
- Ahmad, M. A., Shen, C., Srivastava, J., & Contractor, N. (2014). [On the problem of predicting real world characteristics from virtual worlds](#). In A. Ahmad, C. Shen, J. Srivastava, & N. contractor (Eds.), *Predicting Real World Behaviors from Virtual World Data* (pp. 1–18). Cham: Springer International Publishing.
- Shumate, M., & Contractor, N. (2014). [Emergence of multidimensional social networks](#). In L.L. Putnam & D. Mumby (Eds.), *Handbook of Organizational Communication* (pp. 451-474). Thousand Oaks, CA: Sage.

- Margolin, D., Ognyanoya, K., Huang, M., Huang, Y., & Contractor, N. (2012). [Team formation and performance on Nanohub: A network selection challenge in scientific communities](#). In B. Vedres & M. Scotti (Eds.), *Networks in Social Policy Problems* (pp. 80–100). Cambridge, UK: Cambridge University Press.
- Contractor, N., & Su, C. (2012). [Understanding groups from a network perspective](#). In A. Hollingshead & M. S. Poole (Eds.), *Research Methods for Studying Groups and Teams: A Guide to Approaches, Tools, and Technologies* (pp. 284-310). New York: Taylor & Francis/Routledge.
- Poole, M. S., & Contractor, N. S. (2011). [Conceptualizing the multiteam system as an ecosystem of networked groups](#). In Zaccaro, S.J., Marks, M.A., & DeChurch, L.A. (Eds.), *Multiteam Systems: An Organizational Form for Dynamic and Complex Environments* (pp. 193-224). New York: Routledge Academic.
- Pathak, N., Mane, S., Srivastava, J., Contractor, N., Poole, S., & Williams, D. (2008). [Analysis of social networks and group dynamics from electronic communication](#). In Kargupta, H., Han, J., Yu, P.S., Motwani, R., & Kumar, V. (Eds.), *Next Generation of Data Mining* (377-397). Chapman and Hall.
- Hollingshead, A., & Contractor, N. (2006). [New media and small group organizing](#). In L.A. Lievrouw & S. Livingstone (Eds.), *The Handbook of New Media (Student Edition)* (pp. 114-133). London: Sage.
- Katz, N., Lazer, D., Arrow, H., & Contractor, N. (2005). [The network perspective on small groups: Theory and research](#). In Poole, M. S. & Hollingshead, A.B. (Eds.), *Theories of Small Groups: Interdisciplinary Perspectives* (pp. 277-312). Newbury Park, CA: Sage.
- Contractor, N. S., & Monge, P. R. (2003). [Using multi-theoretical multilevel models to study adversarial networks](#). In R. Breiger, K. Carley, & P. Pattison (Eds.), *Dynamic Social Network Modeling and Analysis: Workshop Summary and Papers* (pp. 324-344). Washington, D.C.: National Research Council.
- Hollingshead, A. B., & Contractor, N. S. (2002). [New media and organizing at the group level](#). In S. Livingstone & L. Lievrouw (Eds.), *Handbook of New Media* (pp. 221-235). London: Sage.
- Contractor, N. (2002). [New media and organizing: Introduction](#). In S. Livingstone & L. Lievrouw (Eds.), *Handbook of New Media* (pp. 201-205). London: Sage.
- Contractor, N., & Baldwin, C. (2001). [Adoption of communication technologies and the evolution of communication networks in organizations](#). In V. Burton, D. Herr, & T. Finnegan (Eds.), *Wayfarer: Charting Advances in Social Science Computing (CD)*. Urbana, IL: University of Illinois Press.

- Monge, P. R., & Contractor, N. S. (2001). [Emergence of communication networks](#). In F.M. Jablin & L.L. Putnam (Eds.), *The New Handbook of Organizational Communication* (pp. 440-502). Newbury Park, CA: Sage.
- Shapiro, M. A., Lang, A., Hamilton, M., & Contractor, N. S. (2001). [Information Systems Division: Intra-Personal, Meaning, Attitude and Social Systems](#). In W. Gudykunst (Ed.), *Communication Yearbook, 24* (pp. 17-49). Newbury Park: Sage.
- Contractor, N., & Bishop, A. P. (2000). [Reconfiguring community networks: The case of PrairieKNOW](#). In T. Ishida (Ed.), *Digital Cities: Technologies, Experiences, and Future Perspectives: Lecture Notes in Computer Science* (pp. 151-164). Berlin: Springer-Verlag.
- Contractor N., Zink, D., & Chan, M. (1998). [IKNOW: A tool to assist and study the creation, maintenance, and dissolution of knowledge networks](#). In Toru Ishida (Ed.), *Community Computing and Support Systems, Lecture Notes in Computer Science, 1519* (pp. 201-217). Berlin: Springer-Verlag.
- Contractor, N., & O'Keefe, B. J. (1997). [The politics of information systems: Rational designs and organizational realities](#). In B. Davenport Sypher (Ed.), *Case Studies in Organizational Communication: Perspectives on Contemporary Work Life* (pp. 203-218). New York: The Guilford Press.
- Contractor, N. S., & Whitbred, R. (1997). [Decision development in work groups: A comparison of contingency and self-organizing systems perspectives](#). In G. Barnett & L. Thayer (Eds.), *Organizational Communication: Emerging Perspectives* (pp. 83-104). New York: Ablex.
- Contractor, N. S., & Grant, S. (1996). [The emergence of shared interpretations in organizations: A self-organizing systems perspective](#). In J. Watt & A. VanLear (Eds.), *Cycles and Dynamic Processes in Communication Processes* (pp. 216-230). Newbury Park, CA: Sage.
- Contractor, N. (1994). [Self-organizing systems perspective in the study of organizational communication](#). In B Kovacic (Ed.), *New Approaches to Organizational Communication* (pp. 39-66). Albany, NY: SUNY Press.
- Seibold, D., Heller, M. A., & Contractor, N. (1994). [Group Decision Support Systems \(GDSS\): Review, taxonomy, and research agenda](#). In B Kovacic (Ed.), *Organizational Communication: New Perspectives* (pp. 143-168). Albany, NY: SUNY Press.
- Contractor, N. S., Singhal, A., & Rogers, E. M. (1993). [Satellite television and development in India: A utopian, dystopian, neutral, and contingency view](#). In K. S. Nair & S. A. White (Eds.), *Perspectives on Development Communication*. Thousand Oaks, CA: Sage.
- Seibold, D., & Contractor, N. (1993). Commentary on "[Issues for a theory of high-speed management](#)" by D. Cushman & E. King. In *Communication Yearbook, 16* (pp. 237-246). Newbury Park, CA: Sage.

Contractor, N. S., & Eisenberg, E. M. (1990). [Communication networks and new media in organizations](#). In J. Fulk & C. W. Steinfield (Eds.), *Organizations and Communication Technology* (pp. 143-172). Newbury Park, CA: Sage.

Monge, P. R., & Contractor, N. S. (1988). [Communication networks: Measurement techniques](#). In C. H. Tardy (Ed.), *A Handbook for the Study of Human Communication: Methods and Instruments for Observing, Measuring, and Assessing Communication Processes* (pp. 107-138). Norwood, NJ: Ablex.

Conference Proceedings

Ichhaporia, R., Gómez-Zarà, D., DeChurch, L., & Contractor, N. (2020). [A Network Approach to the Formation of Self-assembled Teams](#). *Complex Networks and Their Applications VIII*, 969–981. Springer International Publishing. doi: 10.1007/978-3-030-36683-4_77

Antone, B., Gupta, A., Bell, S., DeChurch, L., & Contractor, N. (2020). [Testing Influence of Network Structure on Team Performance Using STERGM-Based Controls](#). *Complex Networks and Their Applications VIII*, 1018–1030. Springer International Publishing. doi: 10.1007/978-3-030-36683-4_81

Harris, A. M., Gómez-Zarà, D., DeChurch, L. A., & Contractor, N. S. (2019). [Joining together online: The trajectory of CSCW scholarship on group formation](#). In *Proc. ACM Hum.-Comput. Interact.*, 3(CSCW), 27. <https://dx.doi.org/10.1145/3359250>

Gómez-Zarà, D., Paras, M., Twyman, M., Lane, J. N., DeChurch, L. A., & Contractor, N. S. (2019, May). [Who would you like to work with?](#). In *Proceedings of the 2019 ACM Conference on Human Factors in Computing Systems (CHI'19)*. doi:[10.1145/3290605.3300889](https://doi.org/10.1145/3290605.3300889)

Cedeno-Mieles, V., Ren, Y., Hu, Z., Deng, X., Contractor, N., Ekanayake, S., Epstein, J.M., Goode, B.J., Kuhlman, C.J., Machi, D., Macy, M.W., Marathe, M.V., Mortveit, H.H., Ramakrishnan, N., Saraf, P., Self, N. (2018). [Pipelines and their compositions for modeling and analysis of controlled online networked social science experiments](#). *Proceedings of the Winter Simulation Conference*, Gothenburg, Sweden.

DeChurch, C., & Contractor, N. S. (2018). [Using Network Science to Discover the Grand Masters of the Florentine Renaissance](#). In L. M. Aiello, C. Cherifi, H. Cherifi, R. Lambiotte, P. Lio, & L. M. Rocha (Eds.), *Proceedings of the 7th International Conference on Complex Networks and Their Applications* (pp. 358–360).

Ren, Y., Cedeno-Mieles, V., Hu, Z., Deng, X., Adiga, A., Barrett, C., ... Macy, M. W. (2018). [Generative modeling of human behavior and social interactions using abductive analysis](#). *2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, 413–420.

- Foote, J., & Contractor, N. (2018). [The behavior and network position of peer production founders](#). In *Transforming Digital Worlds* (Vol. 10766, pp. 99-106). https://doi.org/10.1007/978-3-319-78105-1_12
- Li, Y., Sun, Y., & Contractor, N. (2017). [Graph mining assisted semi-supervised learning for fraudulent cash-out detection](#). *Proceedings of the 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining 2017*, 546–553. New York, NY, USA: ACM. <https://doi.org/10.1145/3110025.3110099>
- Ng, J., Leonardi, P. M., DeChurch, L. & Contractor, N. (2017). [Teaming at the limit: Enhancing team effectiveness with enterprise social media affordances](#). *Proceedings of the Academy of Management, Atlanta, GA*.
- Sha, Z., Wang, M., Huang, Y., Contractor, N., Fu, Y., & Chen, W. (2017). [Modeling product co-consideration relations: A comparative study of two network models](#). *Proceedings of the International Conference on Engineering Design (ICED)*, Vol. 6, No. DS87-6, 317-326.
- Whalen, R., & Contractor, N. (2016). [Measuring innovation: Citation measures of knowledge translation, integration, diffusion and scope](#). *Proceedings of the Academy of Management*, Vol. 2016, No. 1, (p. 16352).
- Lungeanu, A., & Contractor, N. (2016). [Assembly mechanisms of emerging interdisciplinary scientific teams and their impact on performance](#). *Proceedings of the Academy of Management*, Vol. 2016, No. 1, (p. 14388).
- Wang, M., Sha, Z., Huang, Y., Contractor, N., Fu, Y., & Chen, W. (2016). [Forecasting technological impacts on customers' co-consideration behaviors: A data-driven network analysis approach](#). *Proceedings of ASME 2016 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference*, Charlotte, NC.
- Schechter, A. & Contractor, N. (2016). [Modeling the joint dynamics of relational events and individual states](#). *Proceedings of the 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, ASONAM 2016*, San Francisco, CA.
- Whalen, R., Huang, Y., Tanis, C., Sawant, A., Uzzi, B., & Contractor, N. (2016). [Citation distance: Measuring changes in scientific search strategies](#). *Proceedings of the 25th International Conference on World Wide Web, WWW '15 Companion*, Montreal, Canada.
- Hogan, B., Melville, J. R., Philips, G. L., Janulis, P., Contractor, N., Mustanski, B. S., & Birkett, M. (2016). [Evaluating the paper-to-screen translation of participant-aided sociograms with high-risk participants](#). *Proceedings of CHI Conference on Human Factors in Computing Systems*, San Jose, CA.
- Pilny, A., Keegan, B., Foucault Welles, B., Riedl, C., Lazer, D., Radford, J., Ognyanova, K., DeChurch, L., Macy, M., Contractor, N., & Meleis, W. (2016). [Designing online](#)

- [experiments: Citizen Science Approaches to Research](#). *Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW)*, San Francisco, CA.
- Lungeanu, A., Sullivan, S., Contractor, N., & Wilensky, U. (2015). [A Computational model of team assembly in emerging scientific fields](#). *Proceedings of the Winter Simulation Conference, Huntington Beach, CA*.
- Wang, M., Chen, W., Huang, Y., Contractor, N. S., & Fu, Y. (2015). [A multidimensional network approach for modeling customer-product relations in engineering design](#). *Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC/CIE)*, Boston, MA.
- Whalen, R., & Contractor, N. (2015). [Patent application citations and the examination process: a network-based date-sensitive method to analyze patent applications](#). *Proceedings of the Law & Big Data Workshop at the International Conference on Artificial Intelligence and Law*, San Diego, CA.
- Schechter, A. & Contractor, N. (2015). [Forming and performing: How group structure evolves in successful multiteam systems](#). *Proceedings of the Academy of Management*, Vol. 2015, No. 1, (p. 11306).
- Neidhardt, J., Huang, Y., & Contractor, N. (2015). [Team vs. team: Success factors in a multiplayer online battle arena game](#). *Proceedings of the Academy of Management*, Vancouver, Canada.
- McDonald, J. D., Dechurch, L. A., Asencio, R., Carter, D. R., Mesmer-Magnus, J. R., & Contractor, N. S. (2015). [Team task switching: A conceptual framework for understanding functional work shifts](#). *Proceedings of the International Annual Meeting of the Human Factors and Ergonomics Society (HFES)*, Vol. 2015-January, 1157-1161. doi: [10.1177/1541931215591179](https://doi.org/10.1177/1541931215591179)
- Schechter, A., Leenders, R. T., DeChurch, L. A., & Contractor, N. (2014, January). [The signatures of success in teams & multiteam systems](#). *Proceedings of the Academy of Management*, Vol. 2014, No. 1, (p. 16509).
- DeChurch, L. A., Carter, D., Zaccaro, S. J., & Contractor, N. S. (2014). Leadership and governance approaches for complex cooperative settings. *Proceedings of the NATO Human Factors and Medicine Panel. Effective Inter-Agency Interactions and Governance in Comprehensive Approaches to Operations*. Stockholm, Sweden.
- Huang, Y., Ye, W., Bennett, N., & Contractor, N. (2013). [Functional or social? Exploring teams in online games](#). *Proceedings of the 2013 conference on Computer Supported Cooperative Work (CSCW)*, 399-408.

- Sullivan, S., Pierce, C. S., Leonardi, P. M., & Contractor, N. (2013). [Explaining idea sharing mechanisms: Linking diversity and network factors to explore creative teams.](#) *Proceedings of the Academy of Management Annual Conference*, Orlando, FL.
- Xu, B., Huang, Y., Kwak, H., & Contractor, N. (2013). [Structures of broken ties: Exploring unfollow behavior on Twitter.](#) *Proceedings of the 2013 conference on Computer Supported Cooperative Work (CSCW)*, 871-876. San Antonio, Texas, USA.
- Xu, B., Huang, Y., & Contractor, N. (2013). [Exploring Twitter networks in parallel computing environments.](#) *Proceedings of the Conference on Extreme Science and Engineering Discovery Environment (XSEDE): Gateway to Discovery.* doi:10.1145/2484762.2484811
- Ahmad, M., Keegan, B., Roy, A., Williams, D., Srivastava, J., & Contractor, N. S. (2013). [Guilt by association? Network based propagation approaches for gold farmer detection.](#) *Proceedings of the 2013 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining.*
- McCusker, J. P. , Shaikh, A., Contractor, N., Courtney, P., Lee, J., Morgan, G., Tatalovich, Z., Thomas, C., & L. McGuinness, D. L. (2013). [Towards next generation health data exploration: A data cube-based investigation into population statistics for tobacco IT innovation.](#) *Proceedings of the Hawaii International Conference On System Sciences (HICSS).*
- Keegan, B., Gergle, D., & Contractor, N. (2012). [Staying in the loop: Structure and dynamics of Wikipedia's breaking news collaborations.](#) *Proceedings of the 8th International Symposium on Wikis and Open Collaboration: WikiSym 2012*, Linz, Austria.
- Keegan, B., Gergle, D., & Contractor, N. (2012). [Do editors or articles drive collaboration? Multilevel statistical network analysis of wikipedia coauthorship.](#) In S. Poltrack & C. Simone (Eds.), *Proceedings of the CSCW '12 Computer Supported Cooperative Work* (pp. 427–436). New York, USA: ACM. doi:10.1145/2145204.2145271
- Ahmad, M., Borbora, Z., Srivastava, J., & Contractor, N. (2012). [Love all, trust a few: Link prediction for trust and psycho-social factors in MMOs.](#) In S. J. Yang, A. M. Greenberg, & M. Endsley (Eds.), *Lecture Notes in Computer Science: Vol. 7227. Social Computing, Behavioral - Cultural Modeling and Prediction 5th International Conference (SBP)* (pp. 123–130). Berlin: Springer. doi:10.1007/978-3-642-29047-3
- McGuinness, D. L., Lebo, T., Ding, L., McCusker, J. P., Shaikh, A. R., Moser, R. P., et al. (2012). [Towards semantically enabled next generation community health information portals: The PopSciGrid pilot.](#) *Proceedings of the 45th Hawaii International Conference on System Sciences (HICSS)*, 2752–2760. IEEE. doi:10.1109/HICSS.2012.605
- Ahmad, M. A., Keegan, B., Williams, D., Srivastava, J., & Contractor, N. (2011). [Trust among rogues? A hypergraph approach for comparing clandestine trust networks in MMOGs.](#)

Proceedings of the 5th International AAAI Conference on Weblogs and Social Media, 10-17.

Fazel-Zarandi, M., Devlin, H. J., Huang, Y., & Contractor, N. (2011). [Expert recommendation based on social drivers, social network analysis, and semantic data representation](#). *Proceedings of the 2nd International Workshop on Information Heterogeneity and Fusion in Recommender Systems*, 41-48.

Keegan, B., Gergle, D., & Contractor, N. (2011). [Hot off the Wiki: Dynamics, practices and structures in Wikipedia's coverage of the Tōhoku catastrophes](#). *Proceedings of WikiSym11*, 105-113.

Ahmad, M., Keegan, B., Sullivan, S., Williams, D., Srivastava, J. & Contractor, N. (2011). [Illicit bits: Detecting and analyzing contraband networks in massively multiplayer online games](#). *Proceedings of 2011 IEEE International Conference on Social Computing*.

Ahmad, M.A., Keegan, B., Sullivan, S., Williams, D., Srivastava, J., & Contractor, N. (2011). [Towards analyzing adversarial behavior in clandestine networks](#). *Proceedings from the 2011 AAAI Workshop on Applied Adversarial Reasoning and Risk Modeling*, 75-76.

Keegan, B., Ahmed, M.A., Williams, D., Srivastava, J., & Contractor, N. (2010). [Dark gold: Statistical properties of clandestine networks in massively multiplayer online games](#). *Proceedings of 2010 IEEE Second International Conference on Social Computing*, 201-208.

Ahmad, M.A., Borbora, Z., Srivastava, J., & Contractor, N. (2010). [Link prediction across multiple social networks](#). *Proceedings of the 2010 IEEE International Conference on Data Mining Workshops*, 911-918.

Courtney, P., Shaikh, A. R., Contractor, N., McGuinness, D. L., Ding, L., Augustson, E. M., Blake, K., Morgan, G. D., Moser, R., Willis, G., & Hesse, B. W. (2010). Consumer health portal: An informatics tool for translation and visualization of complex, evidence-based population health data for cancer prevention and control. *Proceedings of the 138th American Public Health Association*.

Shaikh, A. R., Contractor, N., Moser, R., Morgan, G. D., Courtney, P. K., E. M. Augustson, A. M. Pilsner, & Hesse, B. W. (2009). [PopSciGrid: Using cyberinfrastructure to enable data harmonization, collaboration, and advanced computation of nationally representative behavioral, demographic, and economic data](#). *Proceedings of the 137th Annual Public Health Association*.

Huang, Y., Zhu, M. Wang, J. Pathak, N., Shen, C., Keegan, B., Williams, D., & Contractor, N. (2009). [The formation of task-oriented groups: exploring combat activities in online games](#). *Proceedings of the 2009 International Conference on Computational Science and Engineering*, 4, 122-127.

- Contractor, N. (2009). [Understanding & enabling networks in digital government](#). *Proceedings of the 10th Annual International Conference on Digital Government Research*. ACM International Conference Proceeding Series, 390, 364-365.
- Ahmad, M.A., Keegan, B., Srivastava, J., Williams, D., & Contractor, N. (2009). [Mining for gold farmers: Automatic detection of deviant players in MMOGs](#). *Proceedings of the 2009 International Conference on Computational Science and Engineering*, 4, 340-345.
- Huffaker, D., Wang, J., Treem, J., Ahmad, M. A., Fullerton, L., Williams, D., Poole, M. S., & Contractor, N. (2009). [The social behaviors of experts in massive multiplayer online role-playing games](#). *Proceedings of the 2009 International Conference on Computational Science and Engineering*, 4, 326-331.
- Neumeyer, X., Contractor, N., & Ehmann, K. (2008). Collaboration Networks in Micromanufacturing, *Proceedings of the 3rd International Conference on Micromanufacturing*, Pittsburgh, PA.
- Huang, Y., Contractor, N., & Yao, Y. (2008). [CI-KNOW: Recommendation based on social networks](#), *Proceedings of DG.O 2008 Annual conference for Digital Government*, Montreal, Canada.
- Contractor, N., & Green, H. D. (2007). [Cyberinfrastructure knowledge networks on the web a recommender system for locating resources in a knowledge network](#). *Proceedings of the 8th Annual International Digital Government Research Conference*, 256–257, Philadelphia, PA, USA: Digital Government Society of North America.
- Steinfeld, C., Pentland, B. T., Ackerman, M., & Contractor, N. (Eds.) (2007). *Communities and Technologies 2007*. Proceedings of the Third Communities and Technologies Conference, London: Springer London.
- Patel, J., Gupta, I., & Contractor, N. (2006). [JetStream: Achieving predictable gossip dissemination by leveraging social networks principles](#). *Proceedings of the 5th IEEE International Symposium on Network Computing and Applications (IEEE NCA06)*.
- Pathak, N., Mane, S., Srivastava, J., & Contractor, N. S. (2006). [Knowledge perception analysis in a social network](#). *Proceedings of the 6th SIAM – International Conference on Data Mining (SDM 06)*.
- Contractor, N., & Leischow, S. (2005). [Cyberinfrastructures for Public Health](#). *Proceedings of the 2005 National Conference on Digital Government Research*, 13–14. Atlanta, Georgia, USA: Digital Government Society of North America.
- Contractor, N., Bishop, A. P., & Zink, D. (1999). [PrairieKNOW: A tool to assist the study, creation, and growth of community networks](#). In H-J. Bullinger & J. Ziegler (Eds.), *Proceedings of*

HCI International '99 (the 8th International Conference on Human-Computer Interaction): Volume 2, (pp. 447-451). Mahwah, NJ: Lawrence Erlbaum.

Jacobs, J. L., Dorneich, M. C., Jones, P. M., O'Keefe, B. J. & Contractor, N. (1997). [SPOT: Using collaborative technologies for developing collaborative technologies](#). *Proceedings of the 1997 IEEE International Conference on Systems, Man, and Cybernetics, 1*, 690-695, Orlando, FL.

Jones, P. M., Chin, G., Lucenti, M., Kim, H-J., Stigberg, D., Sherman, G., Contractor, N., O'Keefe, B. J., Whitbred, R., Grobler, F., Case, M., Heckel, J., Lu, S. C-Y. & Ganeshan, R. (1997). [CITYSCAPE: Civil infostructure technology system for collaborative analysis, prediction, and evaluation](#). *Proceedings of the 1997 IEEE International Conference on Systems, Man, and Cybernetics, 3*, 2223-2227, Orlando, FL.

Jones, P. M., Contractor, N., O'Keefe, B., Lu, S., Case, M., Lawrence, P., & Grobler, F. (1995). [Workflow and cooperative problem solving in civil infrastructure management](#). *Proceedings of the IEEE 1995 International Conference on Systems, Man, and Cybernetics, 5*, 4575-4580, Vancouver, British Columbia, Canada.

Jones, P. M., Contractor, N., O'Keefe, B., & Lu, S. C-Y. (1994). [Competence models and self-organizing systems: Towards intelligent, evolvable, collaborative support](#). *Proceedings of the IEEE 1994 International Conference on Systems, Man, and Cybernetics, 1*, 367-372, San Antonio, TX.

Case, M., Contractor, N., Jones, P. M., Lu, S. C-Y., & O'Keefe, B. J. (1992). [Team engineering analysis and modeling: Toward a normative model of team interaction](#). *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics*, Chicago IL.

SOFTWARE DEVELOPMENT

NU Team Recommender: Team recommender system for Northwestern University scholars. SONIC Research Group, Northwestern University, 2014-present.

Technical Support Unit Influence Strategy Wizard: Recommender system for scaling up health innovations in Bihar, India. SONIC Research Group, Northwestern University, 2014-2017.

My Dream Team: Team Recommender System. SONIC Research Group, Northwestern University, 2013-present.

6DoS: Six Degrees of Separation: Web based game to understand routing of messages via networks. SONIC Research Group, Northwestern University, 2013-present.

VIVO Recommender: Recommending teams for scientific research. SONIC Research Group, Northwestern University, 2012-2017

Semantic Recommender: Semantic Web Cyberinfrastructure for Inquiring Knowledge Networks on the Web. SONIC Research Group, Northwestern University, 2011-2017

C-IKNOW: Cyberinfrastructure for Inquiring Knowledge Networks on the Web People Recommender system. SONIC Research Group , Northwestern University, 2007-2010.

IKNOW: Inquiring Knowledge Networks on the Web . SONIC Research Group at the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign, 1997-2007

Blanche: A computational modeling environment for network evolution. University of Illinois at Urbana-Champaign, 1997-2007

CURRENTLY FUNDED RESEARCH

National Institutes of Health: Simulation Modeling to Understand and Address HIV Disparities in Racial Ethnic and Sexual Minority Populations (2020-2023, \$1,614,060). Co-Principal Investigator

National Science Foundation: Collaborative Research: A Hierarchical Multidimensional Network-based Approach for Multi-Competitor Product Design (2020-2023, \$484,538). Co-Principal Investigator

Defense Advanced Research Projects Agency (DARPA) (via Smart Information Flow Technologies): *SCHNEIDER: System for Counterfactual Human Network Evaluation of Individual Differences, Errors, and Residuals.* (2019-2020, \$159,932). Principal Investigator.

Army Research Laboratory: Macro Signatures of Success in Human Autonomy Teams. (2019-2021, \$1,500,000). Principal Investigator.

National Institutes of Health: *SCISIPBIO: Understanding and Assembling Dream Teams to Conduct Clinical and Translational Science.* (2019-2022, \$997,132). Co-Principal Investigator.

National Science Foundation: *Safe Bets and Risky Propositions Leveraging Rich data to Understand Scientific Diversity, Impact, and Potential of Teams.* (2019-2022, \$699,990). Principal Investigator.

Army Research Laboratory: *Wearable Devices for Monitoring Social Networks.* (2019-2021, \$750,000). Co-Investigator.

National Science Foundation: *Workshop on Human Technology Partnerships and the Changing Nature of Work.* (2019-2020, \$50,000). Principal Investigator.

Army Research Laboratory: *The Signatures of Success in Human-Agent Teams.* (2019-2020,

\$139,061). Principal Investigator.

Facebook, Inc: *Isolation and Social Media in - and out of- This World*. (2019-2020, \$50,000).
Co-Principal Investigator

National Aeronautics and Space Administration (subcontract from University of Georgia):
FUSION: Facilitating Unified Systems of Interdependent Organizational Networks.
(2018-2021, \$308,049). Co-Investigator.

Defense Advanced Research Projects Agency (DARPA) (via Raytheon BBN Technologies): *ACCESS
– Agent-based Causal simulator with Cognitive, Environmental, and Social System
factors*. (2017-2020, \$302,162). Principal Investigator.

National Institute of General Medical Sciences (subcontract from University of California, Los
Angeles): *Team Dynamics, Networks, and Assembly (Team DNA)*. (2016-2021, \$525,247).
Co-Investigator.

National Institute on Drug Abuse: *netCanvas: Development, Hardening, and Dissemination of a
Software Suite for the Collection of Complex Network and Contextual Data in HIV and
Drug Research*. (2016-2021, \$32,023,131). Co-Principal Investigator.

National Aeronautics and Space Administration: *SCALE: Shared Cognitive Architectures for
Long-term Exploration*. (2015-2021, NNX15AM26G, \$1,682,829). Co-Principal
Investigator.

National Aeronautics and Space Administration: *CREWS: Crew Recommender for Effective Work
in Space*. (2015-2020, NNX15AM32G, \$1.05 million). Principal Investigator.

National Aeronautics and Space Administration: *Team Task Switching in Astronaut Crews on the
International Space Station: Integrating Multiteam Membership, Multiteam Systems,
Multitasking & Multidimensional Networks to Monitor & Enable Functional Work Shifts
in Astronaut Crews*. (2015-2020, NNX15AK73G, \$1.05 million). Co-Principal Investigator.

National Institute of Drug Abuse: *Multilevel Influences on HIV and Substance use in a YMSM
(young men who sleep with men) Cohort - RADAR*. (2014-2020, 1U01DA036939-01,
\$8,697,386). Co-Investigator.

PREVIOUSLY FUNDED RESEARCH

National Aeronautics and Space Administration: *A US-Russian Collaborative Proposal for Data
Collection in HERA: The Relationship between Composition, Interpersonal Relations, and Team
Effectiveness in Space Crews*. (2016-2019, \$399,989). Co-Principal Investigator.

Army Research Office: *ANN SONIC NICO Workshop on Brain Science and Social Networks*. (2018-2019, \$15,000). Principal Investigator.

Bill & Melinda Gates Foundation: *Novel Approaches to Measuring Demand-side Community Perceptions and Barriers to Family Planning via Social Network Analysis in Kenya* (2015-2018, OPP1135005, \$136,803). Co-Principal Investigator.

National Science Foundation: *CHS: Medium: Collaborative Research: Understanding Online Creative Collaboration over Multidimensional Networks*. (2015-2018, IIS-1514427, \$374,619). Principal Investigator.

Northwestern University Office of the Provost: *Creating Your Dream Team: Using Technology to Form Effective Project Design in STEM (MDT)*. (2017-2018, \$49,988). Principal Investigator.

National Institutes of Health: *Modeling Scientific Workforce Dynamics Using Social Network Analysis*. (2015-2018, U01GM112623-01, \$1.5 million). Co-Principal Investigator.

Army Research Laboratory (subcontract from BBN Technologies): *Integrated Research Center for Network Sciences Collaborative Technology Alliance* (2009-2018, cooperative agreement number W911NF-09-2-0053, \$628,905). Principal Investigator.

National Institutes of Health via UCLA: *Team DNA*. (2016-2017, 1R01GM112938-01, \$122,099.00). Co-Principal Investigator.

National Institutes of Health – National Institute on Drug Abuse (NIDA): *NetCanvas: Development, Hardening, and Dissemination of a Software Suite for the Collection of Complex Network and Contextual Data in HIV and Drug Research* (2016-2017, R01DA042711). Co-Principal Investigator.

Northwestern University Office of the Provost: *Fostering Effective Online Discussion in Higher Education With 'Nebula,' a Graphical Interface for Discussion Boards*. (2016-2017, \$36,980). Co-Principal Investigator.

Army Research Office: *Socio-Cognitive Networks: Theory & Data Driven Approaches for Understanding the Assembly and Interaction Networks of High Performance Teams*. (2014-2017, W911NF-14-1-0686, \$45,187). Principal Investigator.

National Science Foundation: *Multidimensional Network Analysis for Analyzing and Predicting Complex Customer-Product Relations in Engineering Design*. (2014-2017, CMMI-1436658, \$501,444). Co-Principal Investigator.

National Institutes of Health, National Center for Research Resources: *Annual Science of Team Science Conference* (2011-2017, 5R13TR000046-04, \$50,000). Principal Investigator.

DARPA via Virginia Polytechnic Institute and State University: *Montage: Capturing Collective Identity through Multidisciplinary Modeling and Experimentation* (2016-2018, D17AC00003 01, \$43,658). Co-Principal Investigator.

The National Institutes of Health's National Center for Advancing Translational Sciences (2015-2017, TL1TR001423). Member, NUCATS TL1 Executive Leadership Committee.

National Institutes of Health/NHRR: *Northwestern University Clinical and Translational Sciences Institute (NUCATS)* (2008-2016, \$705,711). Subcontract from Feinberg School of Medicine. Investigator.

National Research Foundation of Korea: *Effects of Intrinsic and Extrinsic Motivation on Flow Experience of Social Network Sites for Seniors and the Moderating Role of Anxiety Attachment*. (2015-2016, NRF-2015S1A5A2A03049328, \$57,005,000 Korean Won). Co-Principal Investigator.

National Science Foundation: *SCC-SBE: Research Coordination Network on Leveraging Computational Social Science for Understanding Virtual Organizations* (2012-2015, OCI-1244747, \$484,971). Principal Investigator.

Army Research Institute: *The Coevolution of Multi-Dimensional Dynamic Networks of Multi-Team Systems Related to Organization Effectiveness: Theory Development and Empirical Tests* (2012-2015, W5J9CQ-12-C-007, \$847,050). Co-Principal Investigator.

National Science Foundation: *SoCS: Leveraging Shared Social Interest in a Content Centric Internet* (2012-2015, CNS-1211375, \$750,000). Co- Principal Investigator.

National Science Foundation: *NetSE: Large: Collaborative Research: Contagion in Large Socio-communication Networks* (2010-2015, CNS-1010904, \$474,711) Principal Investigator.

Virginia Polytechnic Institute and National Institute of General Medical Sciences Prime (Eubank): *Synthetic Information Systems for Better Informing Public Health Policymakers* (2011-2015, 2U01GM070694-09, \$16,780). Investigator.

Bill & Melinda Gates Foundation: *Knowledge Networks for Scaling Up Impact* (2013-2014, 21640 & 1084322, \$997,539). Principal Investigator.

National Science Foundation: *EAGER: Collaborative Research: FLASH! Fueling Learning Alliance in Sustainability in Higher Education: Using social media and networks for science* (2012-2014, 1241324, \$141,944). Principal Investigator.

National Science Foundation: *EAGER: Collaborative Research: Some assembly required: Understanding the Emergence of Teams and Ecosystems of Teams* (2012-2014, 1249137, \$123,847). Principal Investigator.

National Science Foundation: *CDI-Type II: Collaborative Research: Groupscope: Instrumenting Research on Interaction Networks in Complex Social Contexts* (2010-2014, BCS-0940851, \$252,518) Principal Investigator.

National Science Foundation: *Collaborative Research: Coupled Models of Diffusion and Individual Behavior over Extremely Large Social Networks* (2009-2014, 0904356, \$267,201) Principal Investigator.

Army Research Laboratory (subcontract from University of Illinois Urbana-Champaign): *Information Network Academic Research Center: An Integrated Approach towards Information Integration, Modeling, Retrieval, and Discovery* (2009-2014, \$650,002) Investigator with Principal Investigator Jiawei Han.

National Science Foundation: *RAPID: Collaborative Research: 3dWomen: Exploring Three Decades of Women's Groups in Sustainable Development and the Impact of Social Media on Women's Professional Networks* (2012-2013, 1240008, \$98,360). Principal Investigator.

National Institute of Health and National Center for Research Resources: *Multidisciplinary Clinical and Translational Science (MCTS) Program (supplement)* (2011-2013, 5UL1RR025741-04S3 Greenland, \$200,000). Principal Investigator.

Air Force Research Laboratory (subaward from University of Southern California): *The Virtual World Observatory: Identifying Real World (RW) Characteristics from Virtual Behavior* (2009-2013, contract FA8650-10-C-7010, \$513,836) Investigator with Principal Investigator Dmitri Williams.

Oncofertility Consortium through the National Institute of Health (2011). *Oncofertility: The Fertility Preservation for Women* (NIH: 5UL1DE019587), Evaluation Committee.

National Science Foundation: Supplement to *Social Networking Tools to Enable Collaboration in the Tobacco Surveillance, Epidemiology, and Evaluation Network (TSEEN)* (2010-2011, IIS-0535214, \$150,000). Principal Investigator.

National Science Foundation: *VOSS: Understanding and Enabling Network Dynamics in Virtual Communities* (2008-2012, IIS-0838564, \$299,269) Co-Principal Investigator, collaborative proposal with Brian Uzzi and Luis Amaral (Northwestern University), and Peter Monge (University of Southern California).

National Science Foundation: *DHB Virtual Worlds: An Exploratorium for Theorizing and Modeling the Dynamics of Group Behavior* (2007-2012, IIS-0841483, \$620,755) Principal Investigator on collaborative proposal with Scott Poole (University of Illinois at Urbana-Champaign), Jaideep Srivastava (University of Minnesota) and Dmitri Williams (University of Southern California).

Global Philanthropy Project: *Understanding and Enabling Networks to Advance the Chicago*

Climate Action Plan (CCAP) (2009-2011, \$100,000) Principal Investigator.

The John D. and Catherine T. MacArthur Foundation: *Mapping, Understanding and Enabling the Digital Media Learning (DML) Knowledge Networks: An Exploratory Investigation* (2007-2011, \$140,000) Principal Investigator.

National Science Foundation: *Collaborative Research: Social Networking Tools to Enable Collaboration in the Tobacco Surveillance Epidemiology, and Evaluation Network (TSEEN)* (2007-2010, 0836262, \$575,624) Principal Investigator.

Army Research Institute: *Virtual World Exploratorium* (2008-2010, W91WAW-08-C-0106/P00004, \$923,156) Principal Investigator with Scott Poole (University of Illinois), Jaideep Srivastava (University of Minnesota), and Dmitri Williams (University of Southern California).

National Cancer Institute (subcontract from University of Texas Health Science Center, San Antonio TX): *Analysis, Visualization & Interpretation of the Redes en Accion Cancer Network* (2007-2010, \$166,226) Principal Investigator.

National Science Foundation: *CRI: IAD – A Pressing Need for Observation, Facilitation and Computer Support of Group Interactions for Advancing United States National Priorities – Homeland Security and Economic* (2007-2010, 0709249).

National Science Foundation, ITR: *IT-Based Collaboration Framework for Preparing Against, Responding to, and Recovering from Disasters Involving Critical Physical Infrastructures*, (2004-2010, 0427089, \$2,370,000) Co-Principal Investigator in collaboration with Professors Feniosky Pena-Mora, Gene E. Robinson, and Indranil Gupta (University of Illinois Urbana-Champaign), and Andrea Hollingshead (University of Southern California).

National Cancer Institute: *Population Sciences Grid* (2008-2009, 0836262, \$75,000).

National Science Foundation (subcontract from Purdue University): *Network Recommender System for nanoHUB* (2008-2009, \$50,000).

National Institute of Health (subcontract from University of Texas San Antonio): *Mapping, Understanding and Enabling the Redes en Accion Latino Cancer Network* (2007-2008, \$56,000) Principal Investigator.

National Science Foundation: *C-IKNOW Cyberinfrastructure Tools to Enable Knowledge Network Discovery, Diagnosis and Design* (2007-2009, 0753047, \$199,619) Principal Investigator.

National Science Foundation: *Collaborative Research: DHB Virtual Worlds: An Exploratorium for Theorizing and Modeling the Dynamics of Group Behavior* (2007-2008, 0729505).

National Science Foundation: *Social Networking Tools to Enable Collaboration in the Tobacco*

Surveillance, Epidemiology, and Evaluation Network (TSEEN) (2005-2008, IIS- 0535214, \$808,089). Principal Investigator on collaborative proposal with Katy Börner (Indiana University), Tom Finholt (University of Michigan), and Gary Giovino (Roswell Park Cancer Center, Buffalo, NY).

National Cancer Institute (supplement from NCI to NSF): *Tobacco Informatics Grid (TobIG): Development of Prototype to Demonstrate Distributed Collaboration and Data Analysis within the Tobacco Research Community* (2006-2007, IIS-0535214, \$400,000) Principal Investigator.

National Center for Supercomputing Applications: *GroupScope: Instrumenting Research on Interaction of Individuals in Complex Settings* (2006-2007, \$69,347) Principal Investigator on team including Marshall Scott Poole, Feniosky Pena-Mora, Klara Nahrstedt, David Forsyth, and Margaret Fleck.

National Science Foundation: *Collaborative Research: Mapping and Analyzing Emergent Multiorganizational networks in the Hurricane Katrina Response* (2006-2007, SBE-0555115, \$140,000) Principal Investigator on collaborative proposal with Carter Butts (University of California, Irvine).

National Science Foundation: *Instrumenting behaviors and attitudes in virtual worlds* (2006-2007, IIS 0628036, \$155,851) Co-Principal Investigator on collaborative proposal with Dmitri Williams (University of Illinois at Urbana-Champaign) and Dan Hunter (University of Pennsylvania).

National Cancer Institute (subcontract from Battelle Memorial Institute): *Socio-technical Specifications for the Design of a Cyberinfrastructure for a Tobacco Control Informatics Grid* (2005-2006, \$50,000).

National Science Foundation, Workshop on: *The Role of Social Network Research in Enabling Cyberinfrastructure and the Role of Cyberinfrastructure in Enabling Social Network* held November 3-5, 2005 at the National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign, (2005-2006, SCI-0533892 , \$50,000) Principal Investigator with Co-Principal Investigator Katy Börner (Indiana University).

National Science Foundation: *2006 International Workshop and Conference on Network Science*, held May 2006 at Indiana University, Bloomington, IN. (2005-2007, SES-0532387, \$77,714) Co-Principal Investigator with Laszlo Barabasi (University of Notre Dame), Katy Börner, Alex Vespignani, and Stan Wasserman (Indiana University).

Rockefeller Foundation: *Mapping cultural and network assets in three Chicago communities* (2005, CC 035, \$100,000) Principal Investigator in collaboration with Dr. Alaka Wali (Field Museum, Chicago).

National Science Foundation: *Digital Government: Workshop on US-Hungarian Research Collaborations to Address the Challenges of 21st Century Society*. (2003-2005, 0341928, \$97,702) Principal Investigator on collaborative proposal with Anthony Stefanidis (University of Maine).

National Science Foundation: *SGER: Knowledge Networks and Emerging Heterarchies in Rebuilding New York* (2002-2003, 0233449, \$42,908) Principal Investigator on collaborative proposal with David Stark (Columbia University).

National Aeronautics and Space Administration: *Modeling 21st Century Project Teams: Integrating Workflow and Knowledge Network Models of Organizing* (2002-2003, No. 02-NASA-C-1513, \$100,000) Principal Investigator on collaborative proposal with Ray Levitt (Stanford University).

European Union Information Society & Technology Program (subcontract from LUISS University, Rome): *Developing web-based knowledge asset mapping tools to study the use of communication technologies in organizations* (2002-2003, €7000) Principal Investigator.

Hewlett Packard Mobile Initiative Grant Program: *Using mobile technologies* (2001-2002, \$140,760) Investigator with Principal Investigator Win-Mei W. Hwu.

National Science Foundation: *Co-evolution of Knowledge Networks and 21st Century Organizational Forms: Computational Modeling and Empirical Testing* (1999-2003, 9980109, \$1,500,000) Principal Investigator.

KEYNOTE ADDRESSES AND DISTINGUISHED LECTURES

Professor Contractor has delivered over 250 keynotes and distinguished lectures. For details see [here](#).

CONFERENCE PRESENTATIONS

Professor Contractor has presented over 300 conference papers including over 50 papers over the past 35 years at the annual conferences of the International Communication Association. For details see [here](#).

TEACHING

Professor Contractor has taught over 150 undergraduate, graduate, executive/professional and online courses on organizational communication, communication technologies in the workplace, knowledge networks, social network analysis, globalization, and computational social science. He has co-taught over a dozen “virtual” courses with faculty and students at multiple universities using videoconferencing. For details see [here](#).

PROFESSIONAL SERVICE

Editorial Activities

Editor for Communication, Management, and Computational Social Science, *Network Science*, 2012-present.

Co-Editor, *IEEE Computer* 2018 special issue on Web Science, 2018.

Associate Editor, *Journal of Computer Mediated Communication*, 2013-2017.

Section Editor for “New Media and Organizing” in *Handbook of New Media: Social Shaping and Consequences of ICTs* (London: Sage, 2002)

Editorial Assistant for *Communication Research*, 1986-1987.

Editorial board memberships

Journal of Communication, 2001-2003, 2005-2012, 2018- present

Journal of Computer Mediated Communication, 2018-present

Human Communication Research, 1992-1995, 1997-2004, 2010-2016

The Review of Communication, 1999-2012

Communication Theory, 1997-1998, 2002-2005, 2010-2012

Electronic Journal for Computer Mediated Communication, 1994-2009

Small Group Research, 2008-2009

Journal of Applied Communication Research, 1996-1997, 2007

Organization Science, 2000-2004

Management Communication Quarterly, 1992-1998

Handbook for Small Group Communication, 1996-1997

Ad hoc manuscript reviewer

Professor Contractor has served as a reviewer for dozens of interdisciplinary and social science journals, conferences, book proposals and grant proposals. For details see [here](#).

Video Lectures

National Communication Association (November 18, 2011). Grant seeking Basics: A Guide for the Communication Scholar video, New Orleans, LA. Available online at:

<https://www.natcom.org/academic-professional-resources/help-grant-seekers>

Workshop/Conference Organizer/Program Planner

Co-organizer, Steering Committee, Networks 2021: A Joint Sunbelt and NetSci Conference, July 6-11, 2021

Co-organizer, 10th International Workshop on Network Theory: The Future of Work, March 12-14, 2020, Evanston, IL.

Co-organizer, 9th International Workshop on Network Theory: Brain Science and Social Networks, October 25-27, 2018, Evanston, IL.

General Co-chair, IEEE/ACM International Conference on Social Networks Analysis and Mining (ASONAM 2018), Barcelona, Spain.

Chair, Workshop on Workforce Development and Intelligence Analysis, designed to gather information for the Decadal Survey of Social and Behavioral Sciences for Applications to National Security, January 24th, 2018, Washington, D.C.

Co-organizer, 8th International Workshop on Network Theory: Wisdom in Networks, March 23-24, 2017, Los Angeles, CA.

Co-chair, National Academies of Science Workshop on Leveraging Advances in Social Network Thinking for National Security, October 11, 2017 Washington, D.C.

Co-organizer, Designing Online Experiments: Citizen Science Approaches to Research Workshop at the 19th Annual Computer-Supported Cooperative Work and Social Computing (CSCW) Conference, February 27, 2016, San Francisco, CA.

Co-organizer, 7th International Workshop on Network Theory: Peer Production Networks, October 29-31, 2015, Evanston, IL.

Co-organizer, Doctoral Consortium Planning Committee, INGRoup Annual Conference, July 22, 2015, Pittsburgh, PA.

Member, Planning Committee, 1st Computational Social Science Summit, May 15-17, 2015, Evanston, IL.

Co-chair, Computational Approaches to Advance Communication Research Preconference Workshop at the Annual Conference of the International Communication Association, May 21, 2015, San Juan, Puerto Rico.

Member, Steering Committee, 5th International Science of Team Science Conference, August 6-9, 2014, Austin, TX.

Co-organizer, 6th International Workshop on Network Theory: Social Networks in Governmental and Nongovernmental Sectors, April 10-12, 2014, Los Angeles, CA.

Member, Doctoral Consortium Planning Committee, Communication & Technology Division, International Communication Association 2011-2014.

Co-organizer, 5th International Workshop on Network Theory: Network Science meets the Science of Teams, October 3-5, 2013, Evanston, IL.

Conference Co-Chair, 4th International Science of Team Science Conference, June 24-27, 2013, Evanston, IL.

Co-organizer, Satellite workshop to the UN Framework Convention on Climate Change Conference on "Climate Change and Sustainability Communication - New Tools and Trends" at Northwestern University Qatar, December 1, 2012, Doha, Qatar.

Conference Co-Chair, Network Science, NetSci 2012, June 18-22, 2012, Evanston, IL.

Conference Co-Chair, ACM Web Science, WebSci 2012, June 22-24, 2012, Evanston, IL.

Co-organizer, 4th International Workshop on Network Theory: Networked Social Movements and Network Theory, April 26-28, 2012, Los Angeles, CA.

Co-chair, Professional development workshop *The innovations in team innovation: The science of teams and the science in teams* at the Annual Meeting of the Academy of Management August 3, 2012, Boston, MA.

Co-chair (with Brian Uzzi), Net Sci 2012 and ACM Web Science 2012, Evanston, IL.

Associate Chair, February 11-15, 2012, The 2012 ACM Conference on Computer Supported Cooperative Work ([CSCW 2012](#)), Seattle, W.A.

Co-organizer, 3rd International Workshop on Network Theory: Network Science meets Web Science, March 4-6, 2011, Evanston, IL.

Member, 2011 National Communication Association Organizational Communication Division Awards Committee.

Co-organizer, 2011 Social Mobile Web workshop at ICWSM, Barcelona.

Co-organizer (with Brian Uzzi) 2011 NICO (Northwestern Institute on Complex Systems) Complexity Conference, Evanston, IL.

General co-chair, 2011 3rd International Conference on Social Informatics, Singapore.

Member, Review and Selection Committee, May 6, 2011, Second Doctoral Consortium of the Communication and Technology Division of the International Communication Association, Boston, MA.

Co-chair (with Les Carr), Program Track, WWW 2010 Extended Semantic Web Conference, Raleigh, NC.

Co-chair (with Holly Falk-Krzesinski), 1st Annual International Conference on the Science of Team Science, April 22-24, 2010, Chicago, IL.

Co-organizer, 2nd International Seminar on Network Theory: Network Multidimensionality in the Digital Age, February 19-20, 2010, Los Angeles, CA.

Member, Program Committee, 2009, 2010, WWW Conference

Member, Organizing Committee, 2010 Extended Semantic Web Conference

Faculty co-organizer (with Paul Leonardi) October 16-18, 2009, 22nd annual Organizational Communication Mini-Conference, Northwestern University, Evanston, IL.

Co-chair (with Karen Church, Josep M. Pujol, & Barry Smyth) August 29-31, 2009, Social Mobile Web workshop, Vancouver, Canada.

Co-organizer (with Uri Wilensky and Seyed Iravani) 2009 NICO Annual Conference on Complexity and Networks, Evanston, IL.

Co-organizer (with David Lazer & Ines Mergel, Kennedy School of Government, Harvard University), 2008, Workshop on Application of Social Network Analysis in Digital Government. NSF Digital Government Conference, Montreal, Canada.

Co-organizer (with Charles Steinfield, Brian Pentland, and Mark Ackerman) of the 3rd International Communities & Technologies conference, 2007, Michigan State University, East Lansing, MI.

Co-organizer, 1st International Seminar on Network Theory: Interdisciplinary Approaches to Social Network Theory, September 15-16, 2006, Los Angeles, CA.

Co-organizer (with Katy Borner, Stan Wasserman, Laszlo Barabasi, & Alessandro Vespignani) May 2006, International workshop and conference on Network Science (NetSci 2006), Bloomington, IN.

Co-organizer (with Brad Hesse, National Cancer Institute), May 2006, Symposium on Cyberinfrastructure for Public Health, 2006 NSF Digital Government Conference, San Diego, CA.

Co-organizer (with David Lazer & Ines Mergel, Kennedy School of Government, Harvard University), May 2006, 2007, Workshop on Application of Social Network Analysis in Digital Government. NSF Digital Government Conference, San Diego, CA.

Co-organizer (with Katy Borner), October 2006, NSF Workshop on Social Networks and Cyberinfrastructure (SNAC). National Center for Supercomputing Applications, Urbana, IL.

Co-organizer (with David Lazer & Ines Mergel, Kennedy School of Government, Harvard University), 2005, Workshop on Application of Social Network Analysis in Digital Government. NSF Digital Government meeting, Atlanta, GA.

Co-organizer (with Scott Leischow, National Cancer Institute), May 16, 2005, Symposium and "Birds of a Feather" Session on Cyberinfrastructure for Public Health. NSF Digital Government Meeting, Atlanta, GA.

Member, Program Committee, August 22-26, 2005, eGov 2005 Conference, Copenhagen, Denmark.

Member, Program Committee, August 30-September 3, 2004, eGov 2004 Conference, Zaragoza, Spain.

Member, Organizing Committee, 2003-2007, International Symposium on Understanding Complex Systems, Urbana-Champaign, IL. <http://www.how-why.com/ucs2005/>

Co-organizer (with Steve Corman & Ron Rice), May 27, 2004, Workshop on Communication Networks in the Public Interest. Annual Conference of the International Communication Association, New Orleans, LA.

Co-organizer, (with Anthony Stefanidis, U of Maine) May 24, 2004, Birds of a Feather. Session on International Collaboration on Digital Government Research, Digital Government 2004 meeting, Seattle, WA. <http://www.dgrc.org/dgo2004/program/bofs/nosh.pdf>

Co-organizer, (with Anthony Stefanidis, U of Maine) May 21-24, 2004, NSF Workshop on Information Society Technologies and Research Challenges for the 21st Century, Budapest, Hungary.

Organizer and Moderator, February 25, 2004, Gizmos, Gadgets and Googles, Panel sponsored by UIUC's Illinois Program for Research in the Humanities, Urbana, IL.

Organizer and Moderator, December 9, 2003, Silicon, Carbon, Culture Roundtable: Discussion on the projects undertaken as part of the 3-semester initiative, jointly sponsored by UIUC College of LAS and FAA, Beckman Auditorium, Urbana, IL.

Program Planner, May 2003, Organizational Communication Division, Annual Conference of the International Communication Association, San Diego, CA.

Member, Program Committee, 2003, Digital Cities 3: Local Information And Communication Infrastructures: Experiences And Challenges, Kyoto, Japan.

Program Planner, July 15-19, 2002, Organizational Communication Division, Annual Conference of the International Communication Association, Seoul, South Korea.

Member, Program Committee, 2002, International Workshop on Regulated Agent-Based Social Systems: Theories and Applications (RASTA'02).

Member, Program Committee, February 12-17, 2002, International Network for Social Network Analysis Annual Sunbelt Conference, New Orleans, LA.

Member, Program Committee, October 18-21, 2001, 3rd Kyoto Digital Cities and Communityware Meeting, Kyoto, Japan.

Member, Workshop on Collaborative Learning, May 18-21, 1998, UIUC Summer Faculty Institute, Urbana, IL.

Member, Program Committee, 1998, ICA Annual Convention, soliciting sponsorship, providing Internet/Web support, Jerusalem, Israel.

Member, Program Committee, 1997, ICA Annual Convention, soliciting sponsorship, providing Internet/Web support, Montreal, Canada.

Faculty Coordinator, 1997, IXth Annual Organizational Communication Miniconference, Champaign-Urbana, IL.

Member, 1996-1997, SCA Nominations Committee, Publications Awards in Organizational Communication.

Membership in Professional Associations

American Association for the Advancement of Science (AAAS)
Academy of Management (AOM)
American Sociological Association (ASA)
Association for Computing Machinery (ACM)
Institute for Operations Research and Management Science (INFORMS)
International Communication Association (ICA)
International Network for Social Network Analysis (INSNA)
Interdisciplinary Network for Group Research (INGROUP)
National Communication Association (NCA)
Network Science Society (NetSci)

Advisory Board Appointments (Only current)

Member, External Advisory, Indiana University Network Science Institute, 2014-present.

Member, Board of Trustees, Web Science Trust, 2011-present

Member, External Advisory Committee, European Union FP7 Network of Excellence in Internet Science –EINS (<http://www.internet-science.eu/>), 2014- present

Member, External Advisory Board, USC Media Impact Project, 2014-present

Member, Advisory Board, Journal of Human Computation, 2014-present

Member, Advisory Board, Journal of Web Science, 2014-present

Member, Jury for the Everett Rogers Award - for achievement in the fields pioneered by scholar and teacher Everett M. Rogers. (www.rogersaward.org), 2014 - present

Member, External Advisory, ACTNext initiative at ACT, 2016 - present.

Professional Association Committee Appointments & Elected Offices

Member, Selection Committee, OCD Monographs & Edited Book Award, National Communication Association (NCA), 2019

Member, Fellows Working Group on Diversity, International Communication Association (ICA), 2019-present.

Member, Selection Committee, Best Paper Award, Computational Methods Interest Group, International Communication Association (ICA), 2018.

Member, Decadal Survey of Social and Behavioral Sciences and Applications to National Security Committee, 2017-2019.

Member, Ad Hoc Best Paper committee, ICA Computational Methods Interest group, 2018.

Member, New National Communication Association (NCA) Center on Communication Excellence (Center Taskforce), 2016-2018.

Member, Board of Directors, International Network for Social Network Analysis (INSNA), 2013-2016.

Member, Board of Directors, NetSci Society, 2012-2015.

Member, Nominations Committee, Organizational Communication Division, International Communication Association, 2011.

Chair, International Communication Association (ICA) Liaison Committee, 2010-2012

Member, International Communication Association (ICA) External Research Funding Task Force, 2009

Member, International Communication Association (ICA) Development Task Force, 2008-2009

Program Director, Web Science Research Initiative, 2009

Chair, Freeman Awards Committee, International Network for Social Network Analysis, 2007-2008

Chair, International Communication Association, Development Task Force, 2007

Chair, International Communication Association, Nominating committee, 2004-2005

Member, Joint ICA-NCA Task Force, Organizational Assessment Tools, 2003-2005

Member, Best Publication Award Committee, Organizational Communication & Information Systems Division, Academy of Management, 2004-2005

Member, International Communication Association Nominating Committee, 2003-2004

Member, International Communication Association Theme Committee, 2003-2004

Chair, Web Services, International Communication Association, 2000-2001

Member, National Communication Association (NCA) National Science Foundation (NSF) Task Force, 2000-2003

Chair, International Communication Association, Organizational Communication Division, Redding Dissertation Award Committee, 1998

Chair, Organizational Communication Division, International Communication Association, 2002-2004

Vice-Chair, Organizational Communication Division, International Communication Association, 1999- 2001

Secretary, Organizational Communication Division, International Communication Association, 1997-1999

External University Appointments

Honored Professor, School of Business, Fudan University, Shanghai, China, 2010-present.

Distinguished Visiting Scholar, Center for Work, Technology, & Organizations (WTO) in the Department of Management Science & Engineering at Stanford University's School of Engineering, CA, Winter quarter 2017.

External Member, Web Science Distinguished Faculty Search Committee, University of Southampton, UK, 2014.

Member, External Review Committee, College of Communication, Boston University, 2014.

Member, External Review Panel, Department of Communication, Cornell University, 2011.

Member, External Advisory Committee to review Social Informatics Program, School of Informatics and Computing at Indiana University, Bloomington, IN, 2010.

Fellow, The Field Museum, Chicago, Division of Environment, Culture, and Conservation (ECCo), 2007-2015.

External Faculty, Center for Organizational Innovation, Columbia University, 2002-2007.

Faculty Advisory Board, Program in Business Communication, Jones International University, Englewood, CO, 1996-2001.

Van Zelst Distinguished Scholar in Residence, Northwestern University, May 1-5, 2006.

Visiting Scholar, Department of Communication, Purdue University, April 3-7, 2006.

Visiting Honorary Professor, University of Science and Technology of China. Hefei, China, November 2004.

Annenberg Scholar, Annenberg School of Communication, University of Pennsylvania, fall, 1997.

Invited Faculty, Executive M.B.A. Program, University of Jyväskylä, Finland, 1995.

SELECTED UNIVERSITY SERVICE

Northwestern University (Only current)

Member, Faculty Senate, 2014-present

Member, Faculty Senate Research Affairs Committee, 2016-present

Member, Advisory Board, Northwestern Institute on Complex Systems (NICO), 2018-present

Member, Design Research Cluster, Segal Design Institute, Northwestern Engineering, and The Graduate School, 2018-present

Member, Faculty Advisory Board, Master of Science in Communication Program, Northwestern University, 2019-present

Member, Faculty Search Committee, Communication Studies, Northwestern, 2019-present

Member, McCormick School of Engineering Tenure & Promotion committee, 2019-present

Member, Promotion & Tenure Committee, Kellogg School of Management, 2018-present

Mentor for Junior Faculty, Searle Fellows Program, 2019-present

Member, Doctoral Admissions Committee in Management & Organizations (MORS), 2018-present

Member, Doctoral Admissions Committee in Industrial, Engineering, and Management Sciences (IEMS), 2018-present

Member, Northwestern University Graduate Program Review Committee, 2019-present

PUBLIC SERVICE

Consulting Activities

Professor Contractor has consulted with over 30 for-profit, non-profit and government organizations. For details see [here](#).

Selected Publications for Media and Popular Press

Professor Contractor's research has received media coverage in over 60 national and international venues including print, radio, TV and social media. For details see [here](#).