JACOB GATES FOSTER

Department of Sociology, UCLA
264 Haines Hall, 375 Portola Plaza
Los Angeles, CA 90095
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Phone: 1-312-608-8742

EMPLOYMENT

2013— Assistant Professor, Department of Sociology, UCLA
Affiliate, California Center for Population Research
Affiliate, Center for Social Statistics
Affiliate, BRITE Center
Core Faculty, Center for Behavior, Evolution, and Culture
Executive Committee, Institute for Digital Research and Education

2013 Research Associate (Assistant Professor), Department of Sociology, University of Chicago

2010-2012 Postdoctoral Scholar, Department of Sociology, University of Chicago
supervised by James A. Evans

EDUCATION

2006-2010 PhD, Physics, University of Calgary
Thesis: "On the Methodology of Complex Network Analysis,"
supervised by Profs. Maya Paczuski and Peter Grassberger

2003-2006 DPhil Candidate, Mathematics, University of Oxford
Transfer Thesis: "Conformal Invariance, Renormalization, and the Eternal Universe," supervised by Prof. Sir Roger Penrose

1999-2003 B.S. with distinction, magna cum laude, Physics, Duke University
Honors Thesis: "Physics with Two Time Dimensions,"
supervised by Prof. Berndt Mueller

RESEARCH INTERESTS

Science and technology, social theory, computational social science, networks, complex systems, cognition and culture, machine learning, cultural evolution, game theory

FUNDING

2018-2021 PI, "Building a Community of Practice in Diverse Intelligences," Templeton World Charity Foundation

2018-2019 PI, "Diverse Intelligences Summer Institute: Pilot," Templeton World Charity Foundation

2017-2018 PI, "Planning a Summer School in Diverse Intelligences," Templeton World Charity Foundation

2017-2019 PI, "How Stories Live: Using Big Data to Understand the Diversity Dynamics of Folktales," Transdisciplinary Seed Grant-Big Data Track, UCLA

2016-2017 Faculty Career Development Award, UCLA

2016-2017 PI, "Quantifying the Dynamics of Diversity in Culture and Technology," Transdisciplinary Seed Grant, UCLA

2013-2014 PI, "Selection and Cognitive Transformation in the Population Dynamics of Culture," California Center for Population Research (seed grant), UCLA

2013-2016 Co-PI, "Metaknowledge Research Network," John Templeton Foundation

SCHOLARSHIPS AND FELLOWSHIPS

2008 iCORE Scholarship (transferred from 2007 Alberta Ingenuity Scholarship)

2007, 2008 Graduate Research Scholarship, University of Calgary

2006 Dean's Entrance and Graduate Recruitment Scholarships, University of Calgary

2003 Rhodes Scholar

2003 Fellowship to attend Vienna International Summer University

2002 Faculty Scholar, Duke University (2-3 awarded per year for academic promise)

2002 Dean's Summer Fellowship, Duke University

1999 Angier B. Duke Scholar, Duke University (full-tuition, 4 year merit scholarship)

PUBLICATIONS AND WORK UNDER REVIEW

Foster JG, Evans JA (2019) Promiscuous inventions: Modeling cultural evolution with multiple inheritance. *Beyond the Meme*, Minnesota Studies in Philosophy of Science, Vol 22, eds. Love A, Wimsatt W (University of Minnesota Press, Minneapolis).

Foster JG (2018) Culture and computation: Steps to a Probably Approximately Correct theory of culture. *Poetics* 68: 144-154.

Foster JG, Cartmill EA (2018) Managing the multiplicity of meaning. *Co-operative Engagements in Intertwined Semiosis: Essays in Honour of Charles Goodwin,* Tartu Semiotics Library, Vol 19, ed. Favareau D (University of Tartu Press, Tartu).

Foster JG (2015) The eye of the swarm: Collective intelligence and the public intellectual. *Speaking Power to Truth: Knowledge and the Public Intellectual in a Changing World*, eds. Keren M, Hawkins R (Athabasca University Press, Edmonton).

Rzhetsky A, **Foster JG**, Foster IT, Evans JA (2015) Choosing experiments to accelerate collective discovery. *Proc. Natl. Acad. Sci. USA* 112(47): 14569-14574.

Foster JG, Rzhetsky A, Evans JA (2015) Tradition and innovation in scientists' research strategies. *American Sociological Review* 80(5): 875-908. *Winner of 2016 Star-Nelkin Paper Award, ASA Section on Science, Knowledge, and Technology.*

Shi F, **Foster JG**, Evans JA (2015) Weaving the fabric of science: Dynamic network models of science's unfolding structure. *Social Networks* 43: 73-85.

Vilhena DA, **Foster JG**, Rosvall M, West JD, Evans JA, Bergstrom CT (2014) Finding cultural holes: How structure and culture diverge in networks of scholarly communication. *Sociological Science* 1: 221-238.

Foster DV, Rorick M, Gesell T, Feeney L, **Foster JG** (2013) Dynamic landscapes: A model of context and contingency in evolution. *J. Theor. Biol.* 334: 162-172.

Foster DV, **Foster JG**, Grassberger P, Paczuski M (2011) Clustering drives assortativity and community structure in ensembles of networks. *Phys. Rev. E* 84: 066117.

Evans JA, **Foster JG** (2011) Metaknowledge. *Science* 331(6018): 721-725.

Foster DV, **Foster JG**, Paczuski M, Grassberger P (2010) Communities, clustering phase transitions, and hysteresis: Pitfalls in constructing network ensembles. *Phys. Rev. E* 81: 046115.

Foster JG, Foster DV, Grassberger P, Paczuski M (2010) Edge direction and the structure of networks. *Proc. Natl. Acad. Sci. USA* 107(24): 10815-10820.

Foster DV, **Foster JG**, Huang S, Kauffman SA (2009) A model of sequential branching in hierarchical cell fate determination. *J. Theor. Biol.* 260: 589-597.

Foster JG, Grassberger P, Paczuski M (2009) Reinforced walks in two and three dimensions. *New J. Phys.* 11: 023009. *Selected as one of the best papers in NJP for 2009.*

Foster JG, Foster DV, Grassberger P, Paczuski M (2007) Link and subgraph likelihoods in random undirected networks with fixed and partially fixed degree sequences. *Phys. Rev. E* 76: 046112.

Under Review/Revision (manuscripts available upon request):

Foster JG, Shi F, Evans JA (revise & resubmit at *Research Policy*) Measuring novelty by simulating discovery.

Evans JA*, **Foster JG*** (under review at *Critical Inquiry*) Algorithmic abduction: Robots for alien reading. **Equal Authorship*

Evans JA*, **Foster JG*** (conditional accept at *Contexts*) Computation and the sociological imagination. **Equal Authorship*

Song Y*, Bergstrom CT*, **Foster JG*** (in revision) Why scientists chase big problems: Individual strategy and social optimality. **Equal Authorship*
Online at: http://arxiv.org/abs/1605.05822

PEER REVIEWED ABSTRACTS AND CONFERENCE PROCEEDINGS

Foster JG (2012) Me to We: Cooperation, conflict, and the evolution of language. In Scott-Phillips TC, Tamariz M, Cartmill EA, Hurford JR (eds.), *The Evolution of Language: Proceedings of the 9th International Conference (EVOLANG9)*, Singapore: World Scientific.

Foster JG, Slayton M (2010) Deception, tells, and the evolution of combinatorial communication. In Smith ADM, Schouwstra M, de Boer B, Smith K (eds.), *The Evolution of Language: Proceedings of the 8th International Conference (EVOLANG8)*, Singapore: World Scientific.

BOOK REVIEWS AND COMMENTARY

Foster JG (2017) "Five Variations," commentary on *How Societies and States Count* by Rebecca Jean Emigh, Dylan Riley, and Patricia Ahmed. Trajectories 28, 3: 20-25.

Foster JG (2016) Review of *Terrified* by Christopher Bail. American Journal of Sociology 122, 6: 974-976.

Foster JG (2014) Review of *Climbing the Charts* by Gabriel Rossman. American Journal of Sociology 119, 4: 1205-1208.

Foster JG (2012) Review of *A Cooperative Species* by Samuel Bowles and Herbert Gintis. American Journal of Sociology 118, 2: 501-504.

WORK IN PROGRESS

Foster JG*, Evans JA* (under contract, Princeton University Press) *Knowing*. **Equal Authorship*

Perry S, Carter A, Smolla M, Akçay E, Noebel S, **Foster JG**, Healy S (in prep) Not by transmission alone – Culture evolves by both copying and innovation.

Gjesfjeld E, Silvestro D, Chang J, Koch B, **Foster JG**, Alfaro ME (in prep) A quantitative workflow for modeling diversification in technological systems.

Foster JG*, ML Green* (in prep) The arms race for truth. **Equal Authorship*

Koch B*, Silvestro D, **Foster JG** (in prep) The birth and brutal, blackened death of cultural things: Theory and methods for macro-cultural change. **Graduate student co-author*

Arseniev-Koehler A*, **Foster JG** (in prep) Teaching an algorithm what it means to be fat: Machine learning as a model for cultural learning. **Graduate student co-author*

Xu J, **Foster JG**, van der Schaar M (in prep) Making the cut: The design and dynamics of up-or-out evaluation.

Bergstrom CT*, **Foster JG***, Song Y*, Tanaka M* (in prep) The information cost of publication bias. **Authorship order to be determined*

PREPRINTS

Foster JG, Müller B (2010) Physics with two time dimensions.
Online at: http://arxiv.org/abs/1001.2485

INVITED TALKS

Sept 2019	"Made to Know: Science as the Social Production of Knowledge (and its Limits)," Metascience 2019 Symposium (Stanford University, USA)
June 2019	Panelist, "Diverse Intelligence," InterPlanetary Festival (Santa Fe, USA)
March 2019	"Made to Know: Science as the Social Production of Knowledge by a Complex Adaptive System," keynote, Retuning Cognition with a Pair of Rocks: Culture, Evolution, Technology (University of Pittsburgh, Center for Philosophy of Science, USA)

March 2019 "Made to Know: How Complex Systems Produce Knowledge," Cognitive Forum (UCLA Department of Psychology, USA)

May 2018 "The Arms Race for Truth," joint talk with Mark Green, PULSE Conference on AI in Strategic Context: Development Paths, Impacts, and Governance (UCLA Law School, USA)

Mar 2018 "Computational Thinking: Linking Culture and Cognition in Gender, Science, and Memory," Networks & Time Workshop (Columbia University, USA)

Feb 2018 "Understanding Explanation in Artificial Intelligence: What Should We Expect?" joint talk with Mark Green, UCLAI Workshop (UCLA Law School, USA)

Nov 2017 "The Road to 42: Social Limits to Collective Understanding," Limits of Understanding Workshop (Santa Fe Institute, USA)

Oct 2017 "Culture and Computation: Steps to a Probably Approximately Correct Theory of Culture," Networks & Culture Workshop (Stanford GSB, USA)

Sept 2017 "Made to Know: Science as the Social Production of Collective Intelligence," Department of Sociology Colloquium (UC Berkeley, USA)

June 2017 "Made to Know: Science as the Social Production of Collective Intelligence," Santa Fe Institute (Santa Fe, USA)

April 2017 "Made to Know: Science as the Social Production of Collective Intelligence," CQA Spring Meeting (Las Vegas, USA)

Feb 2017 "Made to Know: Science as the Social Production of Collective Intelligence," Computational Social Science & Public Policy Colloquium (UChicago, USA)

Oct 2016 "Culture and Computation: Steps to a Probably Approximately Correct Theory of Culture," Formalizing Culture Workshop (Bern, Switzerland)

Oct 2016 "Made to Know: Science as the Social Production of Collective Intelligence," Network Science IGERT Seminar (UCSB, USA)

Aug 2016 Discussant, "Big Data/Big Theory," American Sociological Association Annual Meeting (Seattle, USA)

May 2016 "Show Us What You Got: Costs (and Benefits) of Misinformation in Science," Culture Analytics (Institute for Pure and Applied Mathematics, UCLA, USA)

April 2016 "Made to Know: Science as the Social Production of Collective Intelligence," Institute for Mathematical Behavioral Sciences (UC-Irvine, USA)

April 2016 "Concerning Censuses: Five Variations," commentary on *How Societies and States Count* (UCLA, USA)

Mar 2016 "Made to Know: Science as the Social Production of Collective Intelligence," International Symposium on Science of Science (Library of Congress, Washington DC, USA)

Jan 2016 "Made to Know: Science as the Social Production of Collective Intelligence," Department of Sociology (University of Arizona, USA)

Dec 2015 "Math + Sociology," Transforming Post-Secondary Education in Mathematics, Regional Meeting (Duke University, USA)

Nov 2015 "Made to Know: Science as the Social Production of Collective Intelligence," Wagner Conference: Decision Making at Research Frontiers (University of Nevada-Reno, USA)

Oct 2015 "The Unknown Known: Science, Social Learning, and Collective Intelligence," Quantifying Science, Conference on Complex Systems 2015 (Tempe, USA)

June 2015 "On the Shoulders of Giants? Science and Collective Intelligence," plenary, Collective Intelligence 2015 (Santa Clara, USA)

May 2015 "On the Shoulders of Giants? Science, Social Learning, and Collective Intelligence," The Jacob Marschak Interdisciplinary Colloquium on Mathematics in the Behavioral Sciences (UCLA, USA)

May 2015 "The Unknown Known: Science, Social Learning, and Cultural Evolution," Behavior, Evolution, and Culture Speaker Series (UCLA, USA)

Oct 2014 "Promiscuous Inventions," with James Evans, Beyond the Meme: Articulating Dynamic Structures in Cultural Evolution (University of Minnesota, USA)

May 2014 "Finding Cultural Holes," Data as Critique: New Computational Approaches to the Study of Culture (University of Chicago, USA)

April 2014 "How Science Thinks," Innovation and Creativity Workshop (UCLA, USA)

Feb 2014 "Science as Social Learning," CCPR Seminar (UCLA, USA)

Jan 2014 "Toward an Ecology of Scientific Knowledge: Science, Social Learning, and Cultural Evolution," Workshop on Mathematics of Social Learning (IPAM, UCLA, USA)

Oct 2013 "Cultural Enrichment," Workshop on Social Network Data: Collection and Analysis (Statistical and Applied Mathematical Sciences Institute, NC, USA)

July 2013 "Clusters," NSF Conference on Innovation (Wharton, UPENN, USA)

Apr 2012 "Stability and Conformity in Scientists' Research Strategies," School of Information (University of Michigan, USA)

Nov 2011 "Novelty, Metaknowledge and Models of Discovery," Center for Nonlinear and Complex Systems & Center for Theoretical and Mathematical Sciences (Duke University, USA)

Oct 2011 "The Eye of the Swarm: Collective Intelligence and the Public Intellectual," Workshop on the Transformation of Public Intellectuals and Canadian Democracy (University of Calgary, Canada)

Aug 2010 "Knowledge and Metaknowledge," inaugural Institute for Computing in Science Workshop: Integrating, Representing, and Reasoning over Human Knowledge (Snowbird, Utah, USA)

Mar 2009 "Complex Equality & Complex Systems," invited class (University of Alberta, Canada)

Oct 2007 "Simulation, Reality, and the Social: a Virtual Provocation," Computational Philosophies (Niels Bohr Institute, Denmark)

TALKS

Aug 2019 "Is Sociology Ready for its Copernican Moment?" contributed talk, American Sociological Association Annual Meeting (New York City, USA)

Aug 2019 "Measuring Novelty by Simulating Discovery," with Feng "Bill" Shi and James Evans, contributed talk, American Sociological Association Annual Meeting (New York City, USA)

Aug 2017 "Why Scientists Chase Big Problems," with Carl Bergstrom and Yangbo Song, contributed talk, American Sociological Association Annual Meeting (Montréal)

Aug 2017 "Culture and Computation: Steps to a Probably Approximately Correct Theory of Culture," contributed talk, American Sociological Association Annual Meeting (Montréal, Canada)

Aug 2015 "Promiscuous Inventions," with James Evans, contributed talk, American Sociological Association Annual Meeting (Chicago, USA)

Aug 2015 "Tradition and Innovation at Scale: Studying SKAT with Big Data," with Andrey Rzhetsky and James Evans, contributed talk, SKAT 25 (Chicago, USA)

Aug 2015 "Inequality all the way down? Dynamics of attention in 20th century physics," with Pete Aceves, Chris Rea, and James Evans, contributed talk, SKAT 25 (Chicago USA)

Aug 2014 "Finding Cultural Holes," with Daril Vilhena, Martin Rosvall, Jevin West, James Evans, and Carl Bergstrom, contributed talk, American Sociological Association Annual Meeting (San Francisco, USA)

Oct 2013 "The Numbers Speak: Big Data, Utopia, and Reflexivity," contributed talk, Society for the Social Studies of Science (San Diego, USA)

Aug 2013 "Blackboxing, Conceptual Distance, and the Routines of Invention," with James Evans, contributed talk, American Sociological Association Annual Meeting (New York City, USA)

Aug 2012 "Stability and Conformity in Scientists' Research Strategies," with James Evans and Andrey Rzhetsky, contributed talk, American Sociological Association Annual Meeting (Denver, USA)

Aug 2012 "Evolutionary and Ecological Approaches to Measuring Influence and Impact," with James Evans and Andrey Rzhetsky, contributed talk, American Sociological Association Annual Meeting (Denver, USA)

June 2012 "Stability and Conformity in Scientists' Research Strategies," NetSci 2012 Symposium, Networks: The Science of Science & Innovation (Northwestern University, USA)

May 2012 "The Art and Science of Community Detection," Computational Social Sciences Workshop (University of Chicago, USA)

Nov 2011	"Novelty, Metaknowledge and Models of Discovery," Organizations and Markets Workshop, Booth School of Business (University of Chicago, USA)
Aug 2011	"Measuring Novelty: Models of Discovery and Invention," with James Evans and Andrey Rzhetsky, contributed talk, American Sociological Association Annual Meeting (Las Vegas, USA)
Jan 2010	"A Network Analysis Smörgåsbord," Complexity Seminar (University of Calgary, Canada)
Apr 2009	"The Meme Factor," InnoLab Seminar (University of Calgary, Canada)
Mar 2009	"What is the Future of Economics?" Complexity Seminar (University of Calgary, Canada)
Sept 2008	"On Unification in the Behavioral Sciences," InnoLab Seminar (University of Calgary, Canada)
Aug 2008	"Taking the Avatar Approximation: The Promise and Peril of High-throughput Social Science in Virtual Worlds," contributed talk, Challenges and Visions in the Social Sciences (ETH Zurich, Switzerland)
Jun 2008	"Dynamic Landscapes: A Model of Context and Contingency in Evolution," Santa Fe Institute Complex Systems Summer School (Santa Fe, USA)
Mar 2008	"Torture, Terror, and the Undead," contributed talk, Graduate Sociology Conference (University of Calgary, Canada)
May 2007	"Modeling Adaptive Radiation in Pseudomonads," with Amer Shreim, contributed talk, Fields Institute Workshop: The Mathematics of Evolution (University of Ottawa, Canada)

AWARDS

2016	Star-Nelkin Paper Award, ASA Section on Science, Knowledge, and Technology
2016	Faculty Career Development Award, UCLA
2006	Finalist, Oxford Leadership Prize
2005	Finalist, Oxford Leadership Prize
2005	International Academy of Achievement
2003	Spot Award, Los Alamos National Laboratory, Group P-21
2003	Barbara Hernnstein-Smith Award for Outstanding Work in Literary Theory or Criticism, Duke University
2002	Phi Beta Kappa
2002	Sigma Pi Sigma (physics honor society)
1998	Recognized by Educational Testing Service and Virginia General Assembly for the most 5's on Advanced Placement exams of any junior in the world (ETS also awarded me a trip to Disney World)

RESEARCH EXPERIENCE

2010-2012 Postdoctoral Scholar, Department of Sociology, University of Chicago

2006-2010 Graduate Research Assistant, Department of Physics, University of Calgary

2003 Researcher, Quantum Cryptography Group, Los Alamos National Laboratory

2001-2002 Undergraduate Researcher, Quantum Optics Group, Duke University

TEACHING AND MENTORING EXPERIENCE

2016-2017 Postdoctoral Mentor, Dr. Erik Gjesfjeld, now Renfrew Fellow at the McDonald Institute for Archaeological Research, Cambridge (October 2017)

2016— Member, MA Committee (Alina Arseniev-Koehler [Chair], Sociology, 2017; Clara Hanson, Sociology, 2017; Bernie Koch [Chair], Sociology, 2018), UCLA

2015-2016 Mentor, Dr. Yangbo ("Darcy") Song, who held the title of Assistant Project Scientist, now Assistant Professor at Chinese University of Hong Kong (Shenzhen)

2014— Instructor, SOCIOL 111 (Social Networks), SOCIOL 191V (Science as X), SOCIOL 204 (Topics in Sociological Theorizing), SOCIOL 208A (Social Network Methods) SOCIOL 19 (Diversity and Complexity), SOCIOL 19 (Frontiers of Science), SOCIOL 285 (Formal Models of Social Structures), SOCIOL 208C (Machine Learning for Social Scientists), Department of Sociology, UCLA

2013— Member, PhD Committee (Brooks Ambrose, Sociology, 2013; Seth Erickson, Information Studies, 2015/defended 2018; Kevin Shih, Sociology, 2015; Kartik Ahuja, Electrical Engineering, 2015; Frank van der Wouden, Geography, 2016/defended 2018; Jane Carlen, Statistics, 2016/defended 2018; Emily Yen, Sociology, 2016/defended 2018; Andrew Herman, Sociology, 2017; Yotala Oszkay, Sociology, 2017; Kotrina Kajokaite, Anthropology, 2018; Timothy Blackburn, Statistics, 2018; Reem Mehdoui, Anthropology, 2018; Chris Esposito, Geography, 2019; Alina Arseniev-Koehler [Chair], Sociology, 2019; Ian Peacock, Sociology, 2019), UCLA

2013 Co-instructor, SOCI 40183 (Do Ideas Evolve?), University of Chicago, Center for Disciplinary Innovation/CHSS/Department of Sociology

2009 Mentor for Undergrad Research Project, University of Calgary/Duke University

2005-2006 Tutor, Applied Mathematics, University of Oxford, Balliol College

2004-2006 Teaching Assistant, Further Quantum Theory, Quantum Field Theory, University of Oxford, Mathematical Institute

2000, 2002 Teaching Assistant, Mathematics & Chemistry, Woodberry Forest School

SUMMER SCHOOLS, INSTITUTES, AND WORKSHOPS

2019 Co-organizer, Deep Fakery: Mathematical, Cryptographic, Social, and Legal Perspectives, Institute for Pure and Applied Mathematics, UCLA (upcoming)

2019 Co-organizer, Social and Ethical Challenges in Machine Learning, Institute for Advanced Study, Princeton, NJ (upcoming)

2019 Core Participant, Machine Learning for Physics and the Physics of Learning, Long Program, Institute for Pure and Applied Mathematics, UCLA (upcoming)

2019 Bootcamp, BRITE Center (**B**ridging **R**esearch **I**nnovation, **T**raining and **E**ducation for Minority Health Disparities Solutions), UCLA (upcoming, invited)

2019 Metascience 2019 Symposium (invited)

2019 Director, Diverse Intelligences Summer Institute, June 30-July 20, St Andrews

2019 Keck Institute for Space Studies: Data-Driven Approaches to Searches for the Technosignatures of Advanced Civilizations (invited)

2019 University of Pittsburgh, Center for Philosophy of Science: Retuning Cognition with a Pair of Rocks: Culture, Evolution, Technology (invited)

2018 Bootcamp, BRITE Center (**B**ridging **R**esearch **I**nnovation, **T**raining and **E**ducation for Minority Health Disparities Solutions), UCLA (invited)

2018 Director, Diverse Intelligences Summer Institute, July 29-August 11, St Andrews

2018 PULSE Conference on AI in Strategic Context: Development Paths, Impacts, and Governance, UCLA (invited)

2018 MIT Libraries: Summit on Grand Challenges in Information Science and Scholarly Communications Research—Scholarly Discovery (invited)

2017 Santa Fe Institute: Limits of Understanding (invited)

2017 Santa Fe Institute: Action Symposium on Artificial Intelligence (invited)

2017 Stanford Graduate School of Business: Networks & Culture (invited)

2017 Linköping University: Mapping the Future of Analytical Sociology (invited)

2016 Co-organizer, SoCal Network Economics and Game Theory Symposium, November 4-5, UCLA

2016 University of Bern: Formalizing Culture (invited)

2016 Co-organizer, The Deception of Self and Others, May 27, Institute for Society and Genetics, UCLA

2016 Instructor, Metaknowledge: Mapping, Measuring, and Modeling Science, Culture Analytics Tutorials, Institute for Pure and Applied Mathematics, UCLA

2016 Instructor, Introduction to Machine Learning for Social Scientists, Arizona Methods Workshop, University of Arizona

2014 Co-organizer and panelist, Mathematics of Politics, Institute for Pure and Applied Mathematics, UCLA

2014 University of Chicago: Data as Critique: New Computational Approaches to the Study of Culture (invited)

2014	Institute for Pure and Applied Mathematics, UCLA: Mathematics of Social Learning (invited)
2013	Statistical and Applied Mathematical Sciences Institute: Workshop on Social Network Data: Collection and Analysis (invited)
2013	Wharton, UPENN: NSF Workshop on Innovation (invited)
2013	Oxford Internet Institute: Workshop on Big Data and the Social Sciences (invited)
2012	Co-organizer, Networks: The Science of Science and Innovation, NetSci 2012 Symposium
2012	Institute for Computing in Science Workshop: Big Data and Long Tails (invited)
2011	Institute for Computing in Science Workshop: Accelerating Discovery, Human Computer Symbiosis 50 Years On (invited)
2010	Institute for Computing in Science Workshop: Integrating, Representing, and Reasoning over Human Knowledge (invited)
2008	Complex Systems Summer School, Santa Fe Institute
2005	String Theory Summer School, Perimeter Institute
2003	Vienna International Summer University: Cosmological and Biological Evolution

ACADEMIC SERVICE AND CITIZENSHIP

Ad hoc reviewer: American Journal of Sociology, American Sociological Review, Science, Proceedings of the National Academy of Sciences (USA), Socius, Sociological Science, Research Policy, Topics in Cognitive Science, EPJ Data Science, Social Science and Medicine, Evolang, Computer Supported Cooperative Work, Academy of Management, PLoS ONE, PLoS Computational Biology, Journal of Physics A: Mathematical and Theoretical, New Journal of Physics, Physical Review E

Since Appointment at UCLA:

Professional Service:

2019-2021	Consulting editor, American Journal of Sociology
2018—	Director, Diverse Intelligences Summer Institute
2018	Expert reviewer for grant submitted to Templeton World Charity Foundation
2018	Expert reviewer for NSF in Sociology
2018	Member, James S. Coleman Distinguished Career Achievement Award Committee, Section on Mathematical Sociology (ASA)
2018, 2019	Expert reviewer for "Emergences," Scientific Council of the City of Paris
2017	Expert reviewer for NSF in Sociology and Science, Technology, and Society

2017 Member, Hacker-Mullins Award Committee, Section on Science, Knowledge, and Technology (ASA)

2016, 2017 Champion, Templeton World Charity Foundation

2016 Expert reviewer for concept paper at National Institute on Drug Abuse

2015 Member, Mathematical Sociology Outstanding Article Award Committee (ASA)

2014 Expert reviewer for grant submitted to John Templeton Foundation

University Service:

2019— Special Assistant to the Vice Chancellor for Strategic Initiatives in Data Science

2019 Co-organizer of workshop, Deep Fakery: Mathematical, Cryptographic, Social, and Legal Perspectives, Institute for Pure and Applied Mathematics, UCLA (upcoming)

2017— Committee on Big Data, Division of Social Sciences, UCLA

2016 Co-organizer, SoCal Network Economics and Game Theory Symposium, UCLA

2016 Member (at request of Academic Senate), June 1 Incident Task Force, UCLA

2016 Co-organizer of workshop, The Deception of Self and Others, Institute for Society and Genetics, UCLA

2016 Member, UCLA Delegation to "Narratives of Change," California Institution for Women

2014 Organized Arthur Frank's visit to UCLA as 2014 Canadian Scholar in Residence

2014 Co-organizer of workshop and panelist, Mathematics of Politics, Institute for Pure and Applied Mathematics, UCLA

2013— Executive Committee, Institute for Digital Research and Education, UCLA

Departmental Service:

2019-2020 Executive Committee, Department of Sociology, UCLA

2018-2019 Executive Committee, Department of Sociology, UCLA

2018-2019 Faculty Search Committee, Department of Sociology, UCLA

2017-2018 Executive Committee, Department of Sociology, UCLA

2016— Faculty Sponsor, Computational Sociology Working Group

2016-2017 Undergraduate Education Committee, Department of Sociology, UCLA

2016 Presentation, "Made to Know: Science as the Social Production of Collective Intelligence," UCLA Department of Sociology Board of Visitors

2015 Faculty Search Committee, Department of Sociology, UCLA

2014-2015 Graduate Admissions Committee, Department of Sociology, UCLA

2014 Public lecture, "The Ecology of Ideas: How is Knowledge Made?" UCLA Department of Sociology Development event, Calabasas, CA

2013-2014 Graduate Committee, Department of Sociology, UCLA

Before Appointment at UCLA:

2013— Editorial Board, Computational Social Sciences Series, Springer

2012-2013 Founding co-organizer, Computational Social Sciences Workshop, University of Chicago

2012 Co-organizer, Networks: The Science of Science and Innovation, NetSci 2012 Symposium

2011— Member, American Sociological Association (Science, Knowledge & Technology; Theory; Mathematical Sociology; Sociology of Culture)

2008-2009 President, Physics Graduate Liaison Committee, University of Calgary

2008 Graduate Student Representative, Visioning Retreat, Department of Physics & Astronomy, University of Calgary

2007 Interdepartmental working group on "The Physics of Life," University of Calgary

2006-2009 Physics Graduate Liaison Committee, University of Calgary

2006-2008 Colloquium committee, Department of Physics & Astronomy, University of Calgary

2003-2004 Research, supervision of final editing for Prof. Sir Roger Penrose's The Road to Reality: A Complete Guide to the Laws of the Universe (Random House, 2004).

COMMUNICATION SKILLS

Completed course in January 2005 on public communication of science, University of Oxford

Writer for Oxonian Review of Books, www.oxonianreview.org

"Everybody Loves Einstein," a review of Einstein's Miraculous Year, ed. John Stachel

"Brave Old World," a review of World as Laboratory by Rebecca Lemov

"Warming Up to Al Gore," a review of An Inconvenient Truth by Al Gore

"Love Among the Ruins," a review of In the Shadow of the Bomb by S.S. Schweber

Writer for The American (now defunct)

"The Man Who Made Our World," a review of Einstein: His Life and Universe by Walter Isaacson