

Curriculum Vitae

Personal Information

Name: Mark G. Orr

Affiliation: Social & Decision Analytics Lab
Biocomplexity Institute
Virginia Tech
900 North Glebe Rd.
Arlington, VA 22203

Telephone: (work) 571-858-3116; (home) 718-414-5151

E-mail: morr9@vbi.vt.edu

Education & Training

Degree Type	Discipline	Institution	Year
Fellowship	Epidemiology	Columbia University	2011-14
Certificate	Agent-based Modeling	Argonne National Laboratory	2013
Certificate	System Dynamics	Massachusetts Inst. Of Technology	2009
Certificate	Complex Systems	NIH – Inst. on Systems Science And Health	2009
Postdoctoral	Behavioral Neuroscience	Albert Einstein Coll. Medicine	2004-05
Postdoctoral	Computational Psych.	Carnegie Mellon University	2002-04
Ph.D.	Cognitive Psychology	University of Illinois at Chicago	2003
M.A.	Cognitive Psychology	University of Illinois at Chicago	1999
B.A.	Psychology, Cum Laude	West Chester University	1994

Research Experience

2016 - **present** -- *Forum Fellow*, Global Forum for Urban and Regional Resilience, Virginia Tech
 2014 - **present** -- *Associate Research Professor*, Virginia Tech, Virginia Bioinformatics Institute
 2011 - 2014 -- *Epidemiology Merit Fellow*, Columbia University, Dept. of Epidemiology
 2011 - 2014 -- *Associate Research Scientist*, Columbia University, Dept. of Epidemiology
 2008 - 2011 -- *Associate Research Scientist*, Columbia University, Population & Fam. Health
 2008 - 2009 -- *Statistical Consultant*, Population Council, New York, NY
 2006 - 2010 -- *Statistical Consultant*, Allen Guttmacher Institute, New York, NY
 2006 - 2008 -- *Senior Analyst*, Columbia University, Population & Fam. Health
 2005 - 2006 -- *Statistical Consultant*, New York State Psychiatric Institute, New York, NY
 1997 - 2000 -- *Research Associate*, Annenberg Foundation/Suzuki Music School, Chicago.
 1995 - 1996 -- *Research Associate*, Reading Area Community College, Office of Institutional Research

Honors & Awards

Feb, 2016 Global Forum Faculty Fellow (Three year), Virginia Tech
 July, 2011 Epidemiology Merit Fellow (Three year), Columbia University, Mailman S. Pub. Hlth.
 July, 2002 National Research Service Award (Two-year Institutional), National Institutes of Health
 May, 2001 Provost's Award for Dissertation Research, University of Illinois at Chicago
 April, 2001 Piorkowski Award in Cognitive Psychology, University of Illinois at Chicago
 May, 2000 Junior Investigator Fellowship from the New York Academy of Sciences

Research Interests

Individual Level-Processes: Health behavior and risky decision-making; attitude formation, change and social learning; computational modeling of social psychological processes and network-related processes; use of non-traditional data sources (sensors, media sources) and large-scale social experiments (e.g., networked individuals in games); Individual differences

Group & Population Level-Processes: Large-scale derivation of psychological measurements (e.g., using machine learning given social media input to link psychological constructs to large data streams). Large-scale computational modeling of information diffusion on human socio-technical networks; Intersection between complex systems theory and methods (e.g., agent-based modeling) and psychological processes (e.g., networked cognitive systems); Individual differences and the implications for population dynamics

Epidemiology/Community and Population Health: Health disparities in obesity; sexual health; HIV; adolescent sexual-risk; alcohol dependence in military populations; addiction; statistical/methodological advances (agent-based population models/dynamic social networks)

Research Support

Active or In Process

DARPA Non-disclosable (PI) 7/16 – 1/17
Title: Non-disclosable
Role: Non-disclosable

DoD-Minerva Initiative Korkmaz (PI) 1/17 – 12/20
Title: *The Dynamics of Common Knowledge on Social Networks: An Experimental Approach*
Amount: \$2,000,000
Role: *Co-Investigator*

National Science Foundation Sterett (PI) 9/15 – 8/16
Title: *Appealing to the Authority of Data: Social Complexity, Fragmented Decision Making, and the Politics of Smart Cities*
Amount: \$ 300,000
Role: *Co-Investigator*

National Science Foundation Orr (PI) 9/1/15 – 8/31/18
Title: *IBSS: Understanding social diffusion dynamics among networked cognitive systems*
Amount: \$950,000
Role: *Principal-Investigator*

Army Research Institute Keller (PI) 9/1/15 – 8/31/18
Title: *Towards an Integrated Data Framework for Understanding the Context of Military Environments*
Amount: \$1,690,000
Role: *Co-Investigator*

Completed

Patient-Centered Outcomes Research Institute Mielenz (PI) 03/1/13 – 05/1/15
Title: *The Person-Centered Wellness Home Across the Life Course*
Amount: \$420,000
Role: *Co-Investigator*

National Science Foundation Gershon (PI) 12/1/12-09/30/14
Title: *Systems-Level Mass Fatality Preparedness*
Amount: \$503,000
Role: *Co-Investigator*

National Institutes of Health Orr (PI) 1/2011-1/2013
Title: *Computational Modeling of Individual-Health Behavior*
Amount: \$330,000
Role: *Principle Investigator*

UKY PHSSR Center (RWJF PHSSR) Merrill (PI) 10/1/11 –09/30/12
Title: *Health Officers Advice Networks*
Amount: \$215,000
Role: *Co-Investigator*

Inst. for Social and Economic Resh. in Policy (Columbia Un.) Orr (PI) 9/11 – 5/12
Title: *Developing Complex Systems Approaches to Population Health*
Amount: \$28,000
Role: *Principal Investigator*

Inst. for Social and Economic Resh. in Policy (Columbia Un.) Orr (PI) 9/09 – 5/10
Title: *Social Dynamics of Sexual Initiation: A Complex Systems Approach*
Amount: \$28,000
Role: *Principal Investigator*

Inst. for Social and Economic Resh. in Policy (Columbia Un.) Orr (PI) 7/08 - 1/09
Title: *Social dynamics of pregnancy and contraceptive risk*
Amount: \$15,000
Role: *Principal Investigator*

Research Service

NIH Ad-hoc Reviewer, Nov. 3rd, 2016.
Special Emphasis Panel 2016/

NSF – Review Panel Member, March 31st-April 1st, 2016

Army Research Office Reviewer for ARO Core Programs, Oct. 2014.

NIH Ad-hoc Reviewer, July 24th-25th, 2012.
Special Emphasis Panel 2012/10 ZGM1 BBCB-9 (MS)

Publications

Journal Articles/Book Chapters:

Printed or in press:

Orr, M. G., Chen, D. (Forthcoming Winter 2017). Computational models of health behavior. In Vallacher, R., Nowak, A., & Read, S. (Eds.), *Computational Models in Social Psychology*. Psychology Press/Routledge: New York.

Keller, S., Korkmaz, G., **Orr, M. G.**, Schroeder, A., Shipp, S. (Forthcoming 2017). The Evolution of Data Quality: Understanding the Transdisciplinary Origins of Data Quality Concepts and Approaches. *Annual Review of Statistics and Its Application*.

Orr, M. G. (Forthcoming Fall 2016). Systems of behavior and human health. In Galea, S. & El-Sayed, A. (Eds.), *Systems Science and Population Health*. Oxford University Press: Oxford, UK.

Orr, M. G., Galea, S., Kaplan, G. K. (Forthcoming Fall 2016). Understanding macrosocial policy using complex systems methods: A case study in population health. Policy approaches to In Kaplan, G. K., (Eds), *Growing Inequality: Bridging Complex Systems, Population Health, and Health Disparities*. Westphalia Press: Washington, DC.

Orr, M. G., Galea, S. G., Kaplan, G. A. (2016). Neighborhood Food, Physical Activity, and Educational Environments and Black/White Disparities in Obesity: A Complex Systems Simulation Analysis. *Journal of Epidemiology and Community Health*, 70, 862-867.

Merrill J. A., **Orr M. G.**, Chen D. Y., Zhi Q., Gershon, R. R. (2016). Are we ready for mass fatality incidents? Preparedness of the US mass fatality infrastructure. *Disaster Medicine & Public Health Preparedness*, 10,(1):87-97.

Todd, C. S., Stanekzai, M. R., Nasir, A., Fiekert, K., **Orr. M. G.**, Strathdee, S. A., Vladhov, D. (2016). Change in attitudes and knowledge of problem drug use and harm reduction among a community cohort in Kabul, Afghanistan. *Eastern Mediterranean Health Journal*, 22(3), 107-116.

Orr, M. G., Ziemer, K., Lewis, B., Keller, S. (2015). Mathematical and Computational Simulation of Behavioral and Social Drivers of Population Health. In Spittle, M. & Kaplan, R. (Eds.), *Emerging behavioral and social science perspectives on population health*: AHRQ Press.

Minguez, M., Santelli, J., Gibson, E., **Orr, M. G.**, Shamat, S. (2015). Reproductive health impact of a school health center. *Journal of Adolescent Health*, 56, 338-344.

- Gershon R. R., **Orr M. G.**, Zhi Q., Merrill J. A., Chen D. Y., Riley H. E., Sherman M. F. (2014). Mass fatality preparedness among medical examiners/coroners in the United States: a cross-sectional study. BMC Public Health. 14(1):1275. [Epub ahead of print]
- Orr, M. G.**, Galea, S., Riddle, M., Kaplan, G. A. (2014). Reducing Racial Disparities in Obesity: Simulating the Effects of Improved Education and Social Network Influence on Diet Behavior. Annals of Epidemiology, 24, 563-69.
- Orr, M. G.**, Prescott, M. R., Cohen, G. H., Calabrese, J. R., Tamburrino, M. B., Liberzon, I., Galea, S. (2014). Potentially modifiable deployment characteristics and new-onset alcohol abuse or dependence in the US National Guard. Drug and Alcohol Dependence, 142, 325-332
- Orr. M. G.**, & Plaut, D. C. (2014). Complex systems and health behavior change: Insights from cognitive science. American Journal of Health Behavior, 38(3), 404-413.
- Orr, M. G.**, & Merrill, J. A. (2013). Diffusion of innovation across a national local health department network: A simulation approach to policy development using agent-based modeling, Frontiers in Public Health Services and Systems Research, 2(5), Article #3: <http://uknowledge.uky.edu/frontiersinphssr/vol2/iss5/3>
- Orr, M. G.**, Thrush, R., & Plaut, D. C. (2013). The Theory of Reasoned Action as parallel constraint satisfaction: Towards a dynamic computational model of health behavior. PLOS: One. 8(5): e62490. doi:10.1371/journal.pone.0062490
- Santelli, J., Edelstein, Z., Mathur, S., Wei, Y., Zhang, W., **Orr, M. G.**, Higgins, J., Nalugoda, F., Gray, R., Wawer, M., Serwadda, D., (2013) Behavioral, biological, and demographic risk and protective factors for new HIV infections among youth in Rakai, Uganda. Journal of Acquired Immune Deficiency Syndromes, 63(3), 393-400
- Merrill, J.A., **Orr, M.G.**, Jeon, C.Y., Wilson, R. V., Storrick, J., Carley, K.M. (2012). Topology of local health officials' advice networks: Mind the gaps. Journal of Public Health Management and Practice. 18(6): 602-608
- Merrill, J. A., Carley, K. M., **Orr, M. G.**, Jeon, C. Y., Storrick, J. (2012). Patterns of interaction among local public health officials and the adoption of recommended practices. Frontiers in Public Health Services and Systems Research, 1(1), Article 6.
- Stanekzai, M.R., Todd, C. S., **Orr, M. G.**, Bayan, S., Rasuli, M. Z., Wardak, S. R., Strathdee, S. A. (2012). Baseline assessment of community knowledge and attitudes towards drug use and harm reduction in Kabul, Afghanistan, Drug and Alcohol Review, 31(4), 451-60
- Orr, M. G.** & Evans, C. (2011). Understanding long-term diffusion dynamics in the prevalence of adolescent sexual initiation: A first investigation using agent-based modeling. Research In Human Development. 8(1), 48-66.

- Lindberg, L. & **Orr, M. G.** (2010). Neighborhood-level influences on young men's sexual and reproductive health behaviors. American Journal of Public Health, 101(2), 271-274.
- Waddell, E., **Orr, M.G.**, Sackoff, J.S., Santelli, J.S. (2010). Pregnancy risk among black, white, and Hispanic teen girls in New York City public schools. Journal of Urban Health, 87(3), 426-439.
- Santelli, J.A., **Orr, M.G.**, and Lindberg, L., Diaz, D.C. (2009). Changing Behavioral Risk for Pregnancy among High School Students in the United States, 1991-2007, Journal of Adolescent Health, 45(1), 25-32.
- Santelli, J.A., Sandfort, T.G., **Orr, M. G.** (2009). U.S./European differences in condom use. Letters to the editor. Journal of Adolescent Health, 44(3), 306
- Santelli, J. A., Lindberg, L., **Orr, M. G.** , Finer, L. B. , Speizer, I., (2009). Exploring key dimensions of pregnancy intentions. Studies in Family Planning, 40(2), 87-100
- Santelli, J.A, Carter, M., **Orr, M. G.**, Dittus, P. (2009). Trends in sexual risk behaviors, by non-sexual risk behavior involvement, U.S. high school students, 1991-2007. Journal of Adolescent Health, 44(4), 372-379.
- Santelli, J. A., Sandfort, T, **Orr, M. G.** (2008). Transnational comparisons of adolescent contraceptive use: What can we learn from these? Archives of Pediatrics & Adolescent Medicine, 2008 Jan;162(1):92-94.
- Sandfort, T, **Orr, M. G.**, Santelli, J.A., Hirsh, J.H. (2008). Long-term health consequences of timing of sexual initiation: Results from a national U.S. study, American Journal of Public Health, Jan;98(1):155-61.
- Sussman, E., Horváth, J., Winkler, I. and **Orr, M. G.** (2007). The role of attention in the formation of auditory streams. Perception & Psychophysics, 69, (1), 136-152.
- Orr, M. G.** & Ohlsson, S. (2005). Relationship between complexity and liking as a function of expertise. Music Perception, 22, (4), 583-610.
- Orr, M. G.** & Ohlsson, S. (2001). The relationship between musical complexity and liking in jazz and bluegrass. Psychology of Music, 29, (2), 108-127.
- Renner, M. J., Feiner, A. J., **Orr, M. G.**, & Delaney, B. A. (2000). Environmental enrichment for new world primates: Introducing food-irrelevant objects and *direct and secondary effects. Journal of Applied Animal Welfare Science, 3, (1), 23-32.
- Orr, M. G.** & Ohlsson, S. (1999). Effects of music expertise on evaluative judgments. In M. Hahn and S. C. Stoness (Eds.), Proceedings of the 21st Annual Conference of the Cognitive Science Society (p. 809). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Matzelle, R., Rosenberg, B. & Orr, M. G. (1996). A study of the term and semester calendars in a two year community college. Reading, PA: Reading Area Community College. (ERIC Document Reproduction Service No. ED 389355)

Manuscripts Under Review:

None

Manuscripts In Preparation:

Orr, M.G. & Plaut, D. C. (target: Psychological Review). A general model of attitude formation: The need for distributed representations

Orr, M. G., & Stark, E. (target: Psychological Science). Clarifying the roles of process and structure in the CAN attitude model.

Orr, M. G., & Chen, D. (target journal: Social Networks). Reconceptualizing global information cascades in networks: Implications of the networked cognitive systems approach.

Presentations (* denotes invited presentation)

***Orr, M. G.,** (2016, Aug. 4th). Exploring to-scale Cultural Dynamics: Beyond Machine Learning to Human Physical Symbol Systems. Invited panel presentation at the American Psychological Association Convention 2016. Denver, CO.

***Orr, M. G.** (2015, October). Using the Networked Cognitive Systems Approach to Understand Human Information Diffusion. Invited presentation to the Urban Institute modeling group.

***Orr, M. G.** (2015, April). Using the Networked Cognitive Systems Approach to Understand Human Information Diffusion. Invited presentation to the George Mason Computational Social Science Laboratory.

***Gershon, R. M., Merrill, J., Orr, M. G., Zhi, Q., Sherman, M.** (2014, April). Mass Fatalities and the Death Care Sector. Invited keynote for the British Columbia Funeral Association. Vancouver, BC, Canada.

***Orr, M. G.** (2013, July). Modeling Health Behavior Dynamics: Individuals, Populations, Place and the In-Between. Invited speaker for the 4th Annual Workshop on Dynamic Modeling for Health Policy: Cross-leveraging Dynamic Modeling and Digital Epidemiology. University of Saskatchewan, Saskatoon, CA.

***Orr, M. G.** (2013, April). Social Networks and Population Health. Invited speaker for the Advanced Seminar on Modeling for Public Health and Clinical Research, Columbia University Mailman School of Public Health, New York, NY.

***Orr, M. G.** (2013, Feb.) Modeling Health Behavior Policy: Motivation, An Example & The Future. Invited speaker to the Complex Systems Approaches to Health student group at the Columbia University Mailman School of Public Health, New York, NY.

Galea, S., **Orr, M.G.**, Osgood, N., Mintz, R., Riddle, M., Kaplan, G.A. (Dec. 2012). Competing policy priorities in a resource constrained world: Identifying the most effective policy interventions to reduce black/white disparities in obesity. Presentation at the Science of eliminating health disparities: Building a healthier society, National Harbor, MD.

***Orr, M. G. (2012, June).** Nearly decomposable systems, causal inference, and validation: Using computational models of people and populations in epidemiology. Invited panel speaker for a symposium on “The use of a complex systems approach in epidemiological research: If and when it’s worth it.” At the Annual Meeting of the Society for Epidemiological Research, Minneapolis, Minnesota.

***Orr, M. G.** (2012, May). Agent Simulations in Health Behavior. Invited panel speaker for a symposium on “Systems perspectives in health” sponsored by the Complex Systems Approaches to Health student group at the Columbia University Mailman School of Public Health, New York, NY.

***Orr, M. G.** (2012, April). Understanding obesity: A complex systems/ecological approach. Invited speaker for “Public Health Week” at the Montclair State University, Montclair, NJ.

***Orr, M. G. & Kosenko, A.** (2012, February). Understanding obesity: A complex systems/ecological approach. Invited lecture to the Quantitative Methods in Social Sciences seminar at the Institute for Social and Economic Research in Policy, Columbia University, New York, NY.

***Orr, M. G.** (2012, February). (Reverse)Engineering health behavior. Invited workshop lecture for synergy between engineering and public health, Columbia University School of Engineering, New York, NY.

***Orr, M. G.** (2012, January). The social dynamics of health behavior: A neural network account of the theory of reasoned action. Invited pre-conference Workshop Lecture for the Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA.

Orr, M. G. (2009, October). Long-term dynamics of social norms. Annual meeting of the Society for the Study of Human Development, Ann Arbor, MI

***Santelli, J.S., Lindberg, L., Orr, M.G., Jones, R., Speizer, I., Finer, L.B.** (2008, March). Exploring key dimensions of pregnancy intentions among youth. Annual Meeting of the Society for Adolescent Medicine (SAM), Greensboro, NC.

- Santelli, J.S., **Orr, M.G.**, Lin, A.J. (2007, Nov.). Trends in sexual behaviors and contraceptive use in US high school students: 1991-2005: Are positive trends faltering? American Public Health Ass. Meeting, Wash. D.C
- Santelli, J.S., Carter, M., Dittus, P, **Orr, M.G.** (2007, Nov). Co-variation in sexual and nonsexual risk behaviors over time among U.S. high school students 1991-2005. American Public Health Ass. Meeting, Wash. D.C.
- Santelli, J.S., Lindberg, L., **Orr, M.G.**, Jones, R., Speizer, I.S., Finer, L.B. (2007, Nov.). Exploring key dimensions of pregnancy intentions. American Public Health Ass. Meeting, Wash. D.C.
- Orr, M. G.** (2000, August). Incidental learning and skilled memory theory. Poster accepted for presentation at International Conference for Music Perception and Cognition, Keele, UK.
- Orr, M. G.** (2000, May). Perceived complexity of music: chunking vs. perceptual learning. Poster presentation at the Biological Foundations of Music Conference (A New York Academy of Sciences Conference), New York, New York.
- Orr, M. G.** (2000, April). Perceived complexity of music: chunking vs. perceptual learning. Paper accepted for presentation at the Midwestern Psychological Association's Annual Conference, Chicago, IL.
- Orr, M. G.**, Ohlsson, S, & Miller, L. K. (1999, August). The inverted-U theory: Does it explain expert behavior? Paper presented at the Society for Music Perception and Cognition's Conference 1999, Evanston, IL.
- Orr, M. G.** & Ohlsson, S. (1999, June). Recognition memory for melodies: Implicit learning, expertise, and musical structure. Poster presented at the annual meeting of the American Psychological Society, Denver, CO.
- Orr, M. G.**, Ohlsson, S., & Miller, L. K. (1999, April). The interaction between expertise, complexity and liking in music. Paper presented at the Midwestern Psychological Association's Annual Conference, Chicago, IL.
- Orr, M. G.** & Ohlsson, S. (1999, March). Recognition memory for melodies: Implicit learning, expertise, and musical structure. Paper presented at the Sigma Xi Graduate Student Research Forum, University of Illinois at Chicago, Chicago, IL.
- Orr, M. G.** & Miller, L. K. (1997, August). Aesthetic response to music: Genre and training effects. Paper presented at the Society for Music Perception and Cognition Annual Conference 1997, Cambridge, MA.
- Renner, M. J., Feiner, A. J., Delaney, B. A., & **Orr, M. G.**, (1994, June). Monkeys in toyland: Human infant toys as environmental enrichment for zoo primates. Poster session presented at the annual meeting of the American Psychological Society, Washington, DC.

Renner, M. J., Feiner, A. J., Delaney, B. A., & Orr, M. G., (1994, June). Monkeys in toyland: Human infant toys as environmental enrichment for zoo primates. Poster session presented at the annual meeting of the Animal Behavior Society, Seattle, WA.

University Service

Committees:

Organizing Committee for the Biocomplexity Symposium 2016

Chair, Laurie Coble

1-16 to present

Committee on Strategic Growth Area of Policy, Virginia Tech

Chairs, Karen Roberto, Anne Kademian

7-16 to present

Committee on Adaptive Brain and Behavior Destination Area, Virginia Tech

Chair, Elizabeth Tranter

7-16 to present

Organizing Committee for the Workshop on Risk, Fear and Resilience at Virginia Tech

Chair, James Bohland

9-15 to present

Committee on Development of Simulations for Public Health Education, Columbia University

Chairs, Sandro Galea & Melissa Begg

2-1-12 to 5-1-14

NIH/CDC Institute for Systems Science and Health 2010, Columbia University

Chair, Patricia Mabry (NIH-OBSSR)

10-1-10 to 7-1-10

Future of Public Health Working Group, Columbia University

Chair, Linda Fried

9-1-09 to 9-1-11

Implementation and Systems Science in Population and Family Health, Columbia University

Chair, Joanne Csete

8-1-09 to 6-1-10

External Committee Service

Program committee for the 16th International Joint Conf. on Autonomous Agents and Multiagent Systems (AAMAS 2017).

9-16 to present

Program committee for the 5th Workshop on Sentiment Analysis: Where AI Meets Psychology

8-16 to present

Program committee for International Conference on Complexity-Based Analytics and Policies for Social Good (CAPS2017).
6-16 to present

Website committee for Interdisciplinary Association for Population Health Science
1-16 to present

Communications committee for Interdisciplinary Association for Population Health Science
1-16 to present

Organizing Committee for the 9th International Conference on Agents and Artificial Intelligence
4-16 to present

Organizing Committee for the computational modeling of attitudes workshop at the 2016 International Joint Conference for Artificial Intelligence.
9-15 to 7-16

Peer-Review Service

Review Board
American Journal of Health Behavior (current)

Ad Hoc
Psychological Science
American Journal of Public Health
Journal of Adolescent Health
Studies in Family Planning
American Journal of Preventive Medicine
Obesity
Futures
Social Science and Medicine: Population Health

Society Membership

Cognitive Science Society
Society for Personality and Social Psychology
Society for Epidemiological Research

Teaching Experience

Mentorship

Subject (Undergraduate (U), Graduate (G), Postdoctoral (P))	Institution	Date
Experimental Psychology (U)	University of Illinois at Chicago	1998-2002
Computational Modeling of Social Processes (G) (Advisor to Nathan Lane)	Columbia University	Fall-Sp 2009-10

Practicum in Computational Modeling of Social Process (G) (Advisor to Clare Evans)	Columbia University	Summer 2010
Computational Modeling of Social Processes (G) (Primary Thesis Advisor to Clare Evans)	Columbia University	Fall-Sp 2010-11
Computational Modeling of Social Processes (G) (Advisor to Andrew Kosenko)	Columbia University	Fall-Sp 2011-12
Computational Modeling of Health Behavior (P) (Advisor to Roxanne Thrush)	Columbia University	Sp 2011-Sp 2013
Computational Modeling of Social Processes (G) (Primary Thesis Advisor to Daniel Chen)	Columbia University	Fall-Sp 2013-14
Computational Modeling of Social Processes (G) (Primary Thesis Advisor to Janet Hui)	Columbia University	Fall-Sp 2013-14
Practicum in Computational Modeling of Social Processes (G) (Advisor to Elizabeth Luppia)	Columbia University	Fall-Sp 2013-14
Data Science and Psychology (P) (Advisor to Kathryn Ziemer)	Virginia Tech	Fall 2014 – pres.
Computational Modeling of Social Processes (G) (Doctoral Candidate Advisor to Daniel Chen)	Virginia Tech	Sp 2015 – pres.

Course Instructor

Subject (Undergraduate (U) or Graduate (G))	Institution	Date
Statistics in the Behavioral Sciences (U)	University of Illinois at Chicago	Spring 2000
Quantitative Methods Tutorial (workshop) (G)	Columbia University	Spring 2007-08
Advanced Stat Methods Using Stata (workshop) (G)	Guttmacher Institute	Winter 2007
Complex Systems Approach to Health Behavior (workshop) (G)	Columbia University	Spring 2010
Health and Human Sexuality (U)	Penn State-Berks	Fall 2010
Introduction to Cognitive Psychology (U)	Penn State-Berks	Spring 2011
Introduction to Agent-Based Modeling for Social and Political Process (G)	Virginia Tech	Spring 2016

Thesis/Dissertation Committees

Henry Smart, School of Political and International Affairs
Dan Chen, Biocomplexity Institute

Curriculum Development

*Development of Simulations for Public Health Education, Columbia University
2-1-12 to present*