Katharine A. Anderson

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Current Position

2010 - present* Assistant Professor of Economics and Entrepreneurship
Tepper School of Business, Carnegie Mellon University

Education

Ph.D in Economics, University of Michigan (2010)

"A Study of Skills, Problem Solving, and Collaboration Networks"

Committee: Scott E. Page (Chair), Lada Adamic, Stephan Lauermann, Robert Willis

Masters in Economics, University of Michigan (2007)

B.A. Math (with honors) and Economics (with honors), Grinnell College (2002)

Fields of Interest

Social Networks, Science of Team Science, Skills and Human Capital, Problem Solving, Innovation, Collaboration

Publications

Anderson, Katharine A., (2018). "Skill Networks and Measures of Complex Human Capital" *Proceedings of the National Academy of Science, 201706597*

Anderson, Katharine A., Crespi, Matthew, and Sayre, Eleanor C. Linking Behavior in the PER Coauthorship Network. (2017). *Physical Review PER* 13(1) 010121, 2017: 1-10.

Anderson, K. A. (2016). A model of collaboration network formation with heterogeneous skills. *Network Science*, 4(02), 188-215.

Anderson, Katharine A. (2012). "Specialists and generalists: Equilibrium skill acquisition decisions in problem-solving populations." *Journal of Economic Behavior & Organization*, 84(1), 463-473.

Montgomery, Mark, and Katharine Anderson (2007). "Best laid plans: Gender and the MBA completion rates of GMAT registrants." *The Quarterly Review of Economics and Finance*, *47*(1), 175-191.

Anderson, Katharine, Barrow, Lisa, and Kristen F. Butcher (2005). "Implications of changes in men's and women's labor force participation for real compensation growth and inflation." *Topics in Economic Analysis & Policy*, *5*(1).

Anderson, Katharine, Eric French, and Tina Lam (2004). "You can't take it with you: Asset run-down at the end of the life cycle." *ECONOMIC PERSPECTIVES-FEDERAL RESERVE BANK OF CHICAGO*, *28*(3), 40.

Working Papers

"Social Network Constraints on the Formation of Resource Management Groups" (under review)

"Skill Specialization and Economic Success: Networks and Human Capital in Short Term Labor Markets" (with Rebecca Lessem)

"Skill Specialization and the Formation of Collaboration Networks"

Works in Progress

"Specialization and diversity in teams, when teams are self-generated" (with Seth Richards-Shubik)

"Worker Heterogeneity and Income Inequality"

"Collaboration, Career Paths, and Academic Hierarchy"

"The Structure and Evolution of Knowledge Networks in Economics"

Fellowships and Awards

Berkman Faculty Development Grant (2014-2015)

Junior Faculty Chair, awarded by senior Tepper faculty (2011-2012)

Rackham One-term Dissertation Fellowship (2010)

Integrative Graduate Education and Research Traineeship (IGERT) Fellowship, Institutions, Diversity, Emergence, Adaptation and Structures (IDEAS) NSF award number 0221611 (2007-2009)

Graduate Research Fellowship, National Science Foundation (2004-2007)

Invited Talks

Formal Social Epistemology Workshop (FSEW) (2018)

Department of Mathematics, University of Buffalo (2018)

Complex Systems Seminar, University of Pennsylvania (2015)

Economics Seminar, Grinnell College (2015)

Applied Micro Seminar, Carnegie Mellon University (2015)

Organizational Behavior Seminar, Carnegie Mellon University (2015)

Networks Lunch Seminar, Carnegie Mellon University (2015)

RAIN Seminar, Department of Management Science & Engineering, Stanford University (2012)

Economic Networks Seminar, Department of Economics, Stanford University (2012)

Center for Advanced Modeling in the Social, Behavioral, and Health Sciences, Johns Hopkins University (2012)

NetSci Economics Satellite Session, Northwestern University (2012)

Sumantra Ghoshal Conference on Managerially Relevant Research, London School of Business (2011)

SET Change seminar, Games and Decisions seminar, OBT seminar, Carnegie Mellon University (2011)

Math and Economics Joint Seminar, Grinnell College (2009)

Invited Seminar, Santa Fe Institute (2009)

Selected Conference Presentations

International Conference on Computational Social Science (IC2S2) (2018) "Skill Networks and Measures of Complex Human Capital"

Science of Team Science (2016) "What Brings Us Together: Institutions and Community Structure in an Early-Stage Academic Community"

Networks in Economics Conference, Stanford U (2016) "Writers, Designers, and Software Developers: Skill Networks and Measures of Complex Human Capital"

Sunbelt Conference (2016) "What Brings Us Together: Institutions and Community Structure in Early Stage Academic Communities"

Workshop on Information in Networks (2015) "Writers, Designers, and Software Developers: Skill Networks and Measures of Complex Human Capital"

Science of Team Science (2015) "Specialization and Diversity in Teams when Teams are Self-generated"

Workshop on Information in Networks (2011) "The Information Content of Network Measures"

Teaching

Introduction to Entrepreneurship, Carnegie Mellon University (S2011, S2012, S2013, S2014, S2015, S2016, S2017, S2018)

New course, developed for undergraduate students from a wide range of departments. Classes are a mixture of lecture, discussion, and in-class exercises. The course is structured around two large-scale group projects, where students go through the process of vetting an idea, refining it through the use of market research, building a financial plan, and presenting it to an audience of non-experts

Social, Economic, and Information Networks, Carnegie Mellon University (F2014, F2015, F2016, F2017, F2018)

New course, developed for undergraduate students. This course provides a technical introduction to social network analysis. Students learn a combination of mathematical models, computational models, and statistical techniques. The course is capped off with a group project, where students analyze real social network data.

ICPSR Complex Systems Models in Social Science (2010 and 2011)

One week unit on social networks, developed especially for this course.

Modeling Political Processes (Game Theory), University of Michigan (2009)

Faculty Course Evaluations Available on Request

Student Supervision

Undergraduate Student Research:

Daniel Lee (Summer 2017)

Alan Wang (Summer 2016)

Peiyun Zhang (Summer 2016)

Michael Rosenberg (Spring 2015)

Sharon Lin (Spring 2015)

Hyo Na Lee (Spring 2015)

Doctoral Student Advising:

Faith Feng—Summer Paper Advisor (2016)

Benjamin Tengelsen—Research Advisor (2013-2015)

Matthew Crespi, School of Public Policy—Research Advisor (2014)

Remco Hesen, Department of Philosophy—Committee Member (2013)

Nandana Sengupta—Summer Paper Advisor (2011)

Service

Member: Donald and Winifred Wilson Program, Leadership Council, Grinnell College (2015-present)
Ad Hoc Referee: Proceedings of the National Academy of Science (2018-present)
Ad Hoc Referee: Network Science (2014-present)
Member: Undergraduate Economics Curriculum Committee (2014-2017)
Ad Hoc Referee: Journal of Labor Economics (2014)
Member: Undergraduate Business and Econ Joint Curriculum Committee (2012-2014)
Session Co-organizer: ASSA "Network Models: Theory and Estimation" (2012)
Member: Faculty Hiring Committee (2011-2012)

* On leave AY 2012-2013 (maternity) and AY 2013-2014 (medical)