

Stanford



Daniel McFarland

Professor of Education and, by courtesy, of Sociology and of Organizational Behavior
at the Graduate School of Business

Graduate School of Education

CONTACT INFORMATION

- **Admin Support**

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Bio

BIO

I study the social and organizational dynamics of educational systems like schools, classrooms and universities. In particular, I have performed a series of studies on classroom organization and interaction; on the formation of adolescent relationships, social structures, and identities; on interdisciplinary collaboration and intellectual innovation; and on relational sociology. I have broad research interests and have been drawn into a variety of interdisciplinary collaborations with linguists and computer scientists. This in turn has led to studies of big data and methodological advances in social networks and language modeling.

ACADEMIC APPOINTMENTS

- Professor, Graduate School of Education
- Professor (By courtesy), Sociology
- Professor (By courtesy), Organizational Behavior

ADMINISTRATIVE APPOINTMENTS

- Professor, Stanford Graduate School of Education, (2000- present)
- Director, Stanford Center for Computational Social Science, (2012-2016)

HONORS AND AWARDS

- Gould Award, American Journal of Sociology (2013-14)
- Friedrich Wilhelm Bessel Award, Alexander von Humboldt Foundation (2014-17)

PROGRAM AFFILIATIONS

- Science, Technology and Society

PROFESSIONAL EDUCATION

- PhD/MA, University of Chicago, Sociology , Sociology
- BA, University of Chicago , Philosophy

LINKS

- Stanford Center for Computational Social Science: <https://css-center.stanford.edu>

- Graduate School of Education Site: <https://ed.stanford.edu/faculty/mcfarland>
- My Lab: <https://web.stanford.edu/dept/SUSE/cgi-bin/drupal/mimir/>
- Google Scholar: <https://scholar.google.com/citations?user=nx8clgcAAAAJ&hl=en>

Research & Scholarship

RESEARCH INTERESTS

- Data Sciences
- Higher Education
- History of Education
- Leadership and Organization
- Sociology

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am currently engaged in several projects.

1. I am writing a textbook on Social Network Analysis in R with James Moody and Jeff Smith.
2. I am writing up a series of papers on how micro-events in interaction relate to social networks with Jan Fuhse.
3. However, the majority of my current research projects concern the sociology of science and research innovation.

Teaching

COURSES

2019-20

- Introduction to Data Science: EDUC 143, EDUC 423, SOC 302 (Win)
- Social Network Methods: EDUC 316, SOC 369 (Spr)

2018-19

- Introduction to Data Science: EDUC 423, SOC 302 (Win)
- Play and Games: EDUC 414, SOC 301 (Aut)
- Social Network Methods: EDUC 316, SOC 369 (Win)
- Sociology of Science: EDUC 120, EDUC 320, SOC 330, STS 200Q (Aut)

2017-18

- Relational Sociology: EDUC 312, SOC 224B (Win)
- Social Network Methods: EDUC 316, SOC 369 (Win)

2016-17

- Organizational Analysis: EDUC 288, SOC 271 (Aut)
- Relational Sociology: EDUC 312, SOC 224B (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Ellie Beam, James Chu, ELISA KIM, Cindy Lam, Sheridan Stewart

Postdoctoral Faculty Sponsor

Bas Hofstra, Lanu Kim

Orals Evaluator

Lily Fesler

Doctoral Dissertation Advisor (AC)

Sebastian Munoz-Najar Galvez

Doctoral Dissertation Co-Advisor (AC)

Luis Grochocki

Doctoral (Program)

Hancheng Cao, Emma Kerr, Taylor LiCausi, Sebastian Munoz-Najar Galvez, Kemi Oyewole

Publications

PUBLICATIONS

- **The Diversity-Innovation Paradox in Science.** *Proceedings of the National Academy of Sciences of the United States of America*
Hofstra, B., Kulkarni, V. V., Munoz-Najar Galvez, S., He, B., Jurafsky, D., McFarland, D. A.
2020
- **The Patterning of Collaborative Behavior and Knowledge Culminations in Interdisciplinary Research Centers** *MINERVA*
Makinen, E. I., Evans, E. D., McFarland, D. A.
2020; 58 (1)
- **Paradigm Wars Revisited: A Cartography of Graduate Research in the Field of Education (1980-2010)** *AMERICAN EDUCATIONAL RESEARCH JOURNAL*
Galvez, S., Heiberger, R., McFarland, D.
2019
- **The Patterning of Collaborative Behavior and Knowledge Culminations in Interdisciplinary Research Centers** *Minerva*
Mäkinen, E. I., Evans, E. D., McFarland, D. A.
2019: 1-25
- **Superstars in the making? The broad effects of interdisciplinary centers** *RESEARCH POLICY*
Biancani, S., Dahlander, L., McFarland, D. A., Smith, S.
2018; 47 (3): 543–57
- **Measuring the evolution of a scientific field through citation frames** *Transactions of the Association for Computational Linguistics*
Jurgens, D., Kumar, S., Hoover, R., McFarland, D., Jurafsky, D.
2018; 6: 391-406
- **Modeling Affinity based Popularity Dynamics**
Kim, M., McFarland, D. A., Leskovec, J., Assoc Comp Machinery
ASSOC COMPUTING MACHINERY.2017: 477–86
- **Descriptive Analysis in Education: A Guide for Researchers.** *NCEE 2017-4023. National Center for Education Evaluation and Regional Assistance*
Loeb, S., Dynarski, S., McFarland, D., Morris, P., Reardon, S., Reber, S.
2017
- **Ethnic Composition and Friendship Segregation: Differential Effects for Adolescent Natives and Immigrants** *AMERICAN JOURNAL OF SOCIOLOGY*
Smith, S., van Tubergen, F., Maas, I., McFarland, D. A.
2016; 121 (4): 1223-1272

- **Community (in) colleges: The relationship between online network involvement and academic outcomes at a community college** *Community College Review*
Evans, E. D., McFarland, D. A., Rios-Aguilar, C., Deil-Amen, R.
2016; 44 (3): 232-254
- **Measuring paradigmaticness of disciplines using text** *Sociological Science*
Evans, E. D., Gomez, C. J., McFarland, D. A.
2016; 3: 757-778
- **Citation classification for behavioral analysis of a scientific field** *arXiv preprint arXiv:1609.00435*
Jurgens, D., Kumar, S., Hoover, R., McFarland, D., Jurafsky, D.
2016
- **Sociology in the era of big data: The ascent of forensic social science** *The American Sociologist*
McFarland, D. A., Lewis, K., Goldberg, A.
2016; 47 (1): 12-35
- **Streams of Thought: Knowledge Flows and Intellectual Cohesion in a Multidisciplinary Era** *SOCIAL FORCES*
Rawlings, C. M., McFarland, D. A., Dahlander, L., Wang, D.
2015; 93 (4): 1687-1722
- **The Organization of Schools and Classrooms** *Emerging Trends in the Social and Behavioral Sciences: An Interdisciplinary, Searchable, and Linkable Resource*
Diehl, D., McFarland, D. A.
2015: 1-15
- **Social Informatics: SocInfo 2014 International Workshops, Barcelona, Spain, November 11, 2014, Revised Selected Papers**
Aiello, L. M., McFarland, D.
Springer.2015
- **Big data and the danger of being precisely inaccurate** *Big Data & Society*
McFarland, D. A., McFarland, R.
2015; 2 (2): 2053951715602495
- **Network Ecology and Adolescent Social Structure** *AMERICAN SOCIOLOGICAL REVIEW*
McFarland, D. A., Moody, J., Diehl, D., Smith, J. A., Thomas, R. J.
2014; 79 (6): 1088-1121
- **The Semiformal Organization** *ORGANIZATION SCIENCE*
Biancani, S., McFarland, D. A., Dahlander, L.
2014; 25 (5): 1306-1324
- **Encouraging Forum Participation in Online Courses with Collectivist, Individualist, and Neutral Motivational Framings.** *eLearning Papers*
Kizilcec, R., Schneider, E., Cohen, G., McFarland, D. A.
2014; 37
- **The Semi-Formal Organization** *Organization Science*, Permalink: <http://dx.doi.org/10.1287/orsc.2013.0882>
Biancani, S., Dahlander, L., McFarland, D. A.
2014
- **Hierarchical models for relational event sequences** *JOURNAL OF MATHEMATICAL PSYCHOLOGY*
DuBois, C., Butts, C. T., Mcfarland, D., Smyth, P.
2013; 57 (6): 297-309
- **Differentiating language usage through topic models** *POETICS*
McFarland, D. A., Ramage, D., Chuang, J., Heer, J., Manning, C. D., Jurafsky, D.
2013; 41 (6): 607-625
- **Making the Connection: Social Bonding in Courtship Situations** *AMERICAN JOURNAL OF SOCIOLOGY*
McFarland, D. A., Jurafsky, D., Rawlings, C.
2013; 118 (6): 1596-1649

- **Transdisciplinary translational science and the case of preterm birth** *JOURNAL OF PERINATOLOGY*
Stevenson, D. K., Shaw, G. M., Wise, P. H., Norton, M. E., Druzin, M. L., Valentine, H. A., McFarland, D. A.
2013; 33 (4): 251-258
- **Ties That Last: Tie Formation and Persistence in Research Collaborations over Time** *ADMINISTRATIVE SCIENCE QUARTERLY*
Dahlander, L., McFarland, D. A.
2013; 58 (1): 69-110
- **Social Networks Research in Higher Education.** *Higher Education: Handbook of Theory and Research*
Biancani, S., McFarland, D. A.
2013; 28: 151-215
- **Detecting friendly, flirtatious, awkward, and assertive speech in speed-dates** *COMPUTER SPEECH AND LANGUAGE*
Ranganath, R., Jurafsky, D., McFarland, D. A.
2013; 27 (1): 89-115
- **Measurement error in network data: A re-classification** *SOCIAL NETWORKS*
Wang, D. J., Shi, X., McFarland, D. A., Leskovec, J.
2012; 34 (4): 396-409
- **Classroom Ordering and the Situational Imperatives of Routine and Ritual** *SOCIOLOGY OF EDUCATION*
Diehl, D., McFarland, D. A.
2012; 85 (4): 326-349
- **Influence flows in the academy: Using affiliation networks to assess peer effects among researchers** *SOCIAL SCIENCE RESEARCH*
Rawlings, C. M., McFarland, D. A.
2011; 40 (3): 1001-1017
- **The Ties that Influence: How Social Networks Channel Faculty Grant Productivity.** *Social Science Research*
Rawlings, C., McFarland, D. A.
2011; 40: 1001-1017
- **Network Search: A New Way of Seeing the Education Knowledge Domain** *TEACHERS COLLEGE RECORD*
Mcfarland, D., Klopfer, E.
2010; 112 (10): 2664-2702
- **Toward a Historical Sociology of Social Situations** *AMERICAN JOURNAL OF SOCIOLOGY*
Diehl, D., Mcfarland, D.
2010; 115 (6): 1713-1752
- **Organization by Design: Supply- and Demand-side Models of Mathematics Course Taking** *SOCIOLOGY OF EDUCATION*
McFarland, D. A., Rodan, S.
2009; 82 (4): 315-343
- **Inside Student Government: The Variable Quality of High School Student Councils** *TEACHERS COLLEGE RECORD*
McFarland, D. A., Starmanns, C.
2009; 111 (1): 27-54
- **Curricular flows: Trajectories, turning points, and assignment criteria in high school math careers** *SOCIOLOGY OF EDUCATION*
McFarland, D. A.
2006; 79 (3): 177-205
- **Bowling young: How youth voluntary associations influence adult political participation** *AMERICAN SOCIOLOGICAL REVIEW*
McFarland, D. A., Thomas, R. J.
2006; 71 (3): 401-425
- **The Art and Science of Dynamic Network Visualization.** *Journal of Social Structure*, Permalink: <http://www.cmu.edu/joss/content/articles/volume7/deMollMcFarland/>
Bender-deMoll, S., McFarland, D. A.
2006; 7 (2)

- **Motives and contexts of identity change: A case for network effects** *98th Annual Meeting of the American-Sociological-Association*
McFarland, D., Pals, H.
SAGE PUBLICATIONS INC.2005: 289–315
- **Dynamic network visualization** *AMERICAN JOURNAL OF SOCIOLOGY*
Moody, J., McFarland, D., Bender-deMoll, S.
2005; 110 (4): 1206-1241
- **Resistance as a social drama: A study of change-oriented encounters** *AMERICAN JOURNAL OF SOCIOLOGY*
McFarland, D. A.
2004; 109 (6): 1249-1318
- **When tensions mount: Conceptualizing classroom situations and the conditions of student-teacher conflict** *Conference on Stability and Change in American Education*
McFarland, D. A.
ELIOT WERNER PUBLICATIONS INC.2003: 127–150
- **Student resistance: How the formal and informal organization of classrooms facilitate everyday forms of student defiance** *AMERICAN JOURNAL OF SOCIOLOGY*
McFarland, D. A.
2001; 107 (3): 612-678