

TAYLOR C. DOTSON

CURRICULUM VITAE

CLASS Department 801 Leroy Pl., Socorro, NM 87801 (575) 835-5211 taylor.dotson@nmt.edu

EDUCATION

PhD, Science & Technology Studies, May 2015

Rensselaer Polytechnic Institute, Troy, NY G.P.A. 3.97/4.0

"Communitarian Technology," Dissertation Chair: Edward J. Woodhouse

Masters of Science, Industrial Mathematics, May 2008 (Awarded in 2009)

New Mexico Institute of Mining and Technology, Socorro, NM

Concentration in Computational Material Science G.P.A. 3.9/4.0

Bachelor of Science, Mathematics, December 2006

New Mexico Institute of Mining and Technology, Socorro, NM

Concentration in Physics and Applied Mathematics G.P.A. 3.95/4.0

RESEARCH FOCI

Technology and Community, Urban Studies, Food-Water-Energy and Sustainability, Digital Technology, and the Governance of Sociotechnical Risk and Change

PROFESSIONAL EXPERIENCE

New Mexico Institute of Mining and Technology Assistant Professor of Social Science
Socorro, NM August 2015 -

Fort Belknap (Aaniih Nakoda) Tribal College Math/CIS Instructor
Harlem, MT January 2009 - July 2011

Also served as Minority Science and Engineering Improvement Program grant coordinator.

PUBLICATIONS

Academic Books

2017 Technically Together: Reconstructing Community in a Networked World
Cambridge, MA: MIT Press

Refereed Journal Articles

- 2016 "Generating Community, Generating Justice? The Production and Circulation of Value in Community Energy Initiatives." *Teknokultura*, 13(2): 511–540. (With James Wilcox)
- 2016 "Trial and Error Urbanism: Addressing Obduracy, Uncertainty and Complexity in Urban Planning and Design." *Journal of Urbanism*, 9(2): 148–165.
- 2015 "Technological Determinism and Permissionless Innovation as Technocratic Governing Mentalities: Psychocultural Barriers to Democratizing Technology." *Engaging Science, Technology, and Society*, 1: 98–120.
- 2014 "Authentic Virtual Others? The Promise of Post-Modern Technologies." *AI & Society*, 29(1): 11–21.
- 2013 "Design for Community: Toward a Communitarian Ergonomics." *Philosophy & Technology*, 26(2): 139–157.
- 2012 "Technology, Choice and the Good Life: Questioning Technological Liberalism." *Technology in Society*, 34(4): 326–336.
- 2009 "Cole-Davidson Dynamics of Simple Chain Models." *Journal of Chemical Physics*, 130: 024903 (First Author, With J. Budzien, J. D. McCoy, and D.B. Adolf)
- 2008 "Rheological Complexity in Simple Chain Models." *Journal of Chemical Physics*, 128: 184905 (First Author, With J.V. Heffernan, J. Budzien, K.T. Dotson, F. Avila, D.T. Limmer, D.T. McCoy, J.D. McCoy, and D.B. Adolf)
- 2008 "Rotational Relaxation in Simple Chain Models." *Journal of Chemical Physics*, 128: 184905 (With J.V. Heffernan, J. Budzien, F. Avila, V.J. Aston, J.D. McCoy, and D. B. Adolf)

- 2007 "Anodizing Steel in KOH and NaOH Solutions." *Journal of the Electrochemical Society*, 154(10): C579-C586 (With T.D. Burleigh, K. T. Dotson, S. J. Gabay, T. B. Sloan, and S. G. Ferrell)

Other Publications

- 2015 "Challenging Convergences in Lay Thought and STS Practice: A Reply to My Critics." *Engaging Science, Technology, and Society*, 1: 131-137.
- 2015 "Civil Society" in *Ethics, Science, Technology, and Engineering: A Global Resource*, Second Edition. Edited by J. Britt Holbrook and Carl Mitcham. Farmington Hills, MI: MacMillan Reference USA. (First Author, With Edward J. Woodhouse)

Manuscripts in Preparation

"Epistemological Luddism: Reinvigorating a Concept for Action in 21st Century Sociotechnical Struggles." (With Michael Lachney)

"From Positive Thinking to Politics: Moving Beyond Technological Possibilitarian Discourse on the Internet" (With Ben Brucato)

"Generating Energy, Generating Community? Evaluating Community Energy Initiatives" (With James Wilcox)

CONFERENCE PRESENTATIONS

- 2016 "Full STEAM Ahead: A Humanities and Social Sciences-Based Living Learning Community for STEM Students ." New Mexico Higher Education Assessment and Retention Conference. Albuquerque, New Mexico. February 26th
- 2015 "From Autonomous Technology to Permissionless Innovation: Psychocultural Barriers to Better Governing Technology ." Panel, "Steering Technology, Lessening Barriers, and Embracing Partisanship," Annual Meeting of the Society for the Social Studies of Science. Denver, Colorado. Nov. 13th. (First Author)
- 2014 "Can Constructivism Have Politics? The Democratic Limits of Technological Possibilitarianism." Panel, "Minority Report: The Fall and Rise of Critical Technology Studies," Annual Meeting of the Society for the Social Studies of Science. Buenos Aires, Argentina. Aug. 21st. (First Author, With Ben Brucato)
- 2014 "Generating Community, Generating Justice? Evaluating Community Energy Initiatives" Panel, "Communitarian Perspectives," Generative Justice: Value from the Bottom-up. Troy, NY. June 28th. (With James Wilcox)
- 2013 "STS and the Reconstruction of Everyday Life: (Re)Building Local Community." Panel, "Spatial: III," Annual Meeting of the Society for the Social Studies of Science. San Diego, CA. Oct. 12th.
- 2011 "Performative Philosophy of Technology and the Good Life." Panel, "Translational STS," Annual Meeting of the Society for the Social Studies of Science. Cleveland, OH. Nov. 5th.

INVITED TALKS

- 2016 "Optimizing the Use of New Mexico's Renewable Energy and Water Resources: An STS Scholar's Perspective." EPSCoR Innovative Working Group. Jemez Springs, NM. August 13, 2016.
- 2016 "What Does STS Have to Offer Engineering (Education)" Department of Mechanical Engineering Seminar. New Mexico Tech. Socorro, NM. February 26th.

WORKSHOP PAPERS

- 2017 "The Promise and Perils of Produced Water: Intelligently Managing an Unconventional Water Resource" STS: Underground. Golden, CO. February 5-7.

CONFERENCE POSTERS

2008 "Orientational Relaxation in Simulated Polymer Melts." Annual Meeting of American Physical Society. Denver, CO. March 12th.

TEACHING EXPERIENCE

New Mexico Tech Communications, Liberal Arts, and Social Sciences (CLASS)
Socorro, NM Assistant Professor of Social Science

Courses: Introduction to Science & Technology Studies; Unintended Consequences, Industrial Accidents, & Other Anthropogenic Disasters; Environment, Science, & Technology; Politics of Science & Technology

Rensselaer Polytechnic Institute Science and Technology Studies (STS)
Troy, NY Teaching Assistant

Courses: Communities: Time & Space; Information Technology & Society; PDII: Media & Democracy; Introduction to Science & Technology Studies

Fort Belknap Tribal College Math and Computer Information Systems
Harlem, MT Instructor

Instructor for a variety of developmental and college-level math and computer application courses including developmental Algebra, College Algebra, Trigonometry and Calculus.

HESS Educational Native Speaker (ESL) Teacher - Changhua City, Taiwan

STEM RESEARCH EXPERIENCE

Intern Statistician BASF Summer 2008
Computational Chemistry Ludwigshafen am Rhein, Germany

Performed self-directed research on machine learning and statistical treatments of high-dimensional biological data. Supervisor: Dr. Wolfgang Grabarse

Research Assistant New Mexico Tech January 2007-May 2008
Material Science Socorro, NM

Researched small-chain polymer dynamics and relaxation through molecular simulation. Managed a small team of undergraduates and authored or co-authored three papers. Supervisor: Dr. John McCoy

Laboratory Assistant New Mexico Tech May 2005-August 2006
Material Science Socorro, NM

Designed and analyzed electrochemical experiments seeking to develop a corrosion resistant film on steel through environmentally safe means. Supervisor: Dr. T. David Burleigh

SPECIAL COURSES ATTENDED

2011 "Power, Liberation and Social Change" - Dr. Maritza Montero
Oslo Summer School in Comparative Social Science

PROFESSIONAL ASSOCIATION AND SERVICE

Reviewership Science, Technology, and Human Values
Philosophy and Technology
Technology in Society
Bulletin of Science, Technology, and Society
Teknokultura

Membership Society for the Social Study of Science
Society for Philosophy of Technology

Chaired Panels Society for the Social Studies of Science, Denver, CO. Nov. 21, 2015
"Steering Technology, Lessening Barriers, and Embracing Partisanship,"

DEPARTMENTAL AND UNIVERSITY SERVICE

2016-now NMT Rugby Football Club Faculty Advisor
2015-now NMT General Education Committee
2015-now NMT Benefits Committee
2015-2016 NMT Faculty Search Committee
2014-2015 RPI STS Graduate Student Representative
2014-2015 RPI STS Department Blog Coordinator

FELLOWSHIPS AND SCHOLARSHIPS

2014 "CommonBound" Attendee Scholarship, New Economic Coalition Meeting
2012 Alger Summer Research Fellowship in Engineering Ethics
2010 Rensselaer Graduate Student Fellowship
2008 DAAD, RISE-Pro German Research Exchange Fellowship
2007 Sandia National Laboratory Graduate Research Fellowship
2003 New Mexico Tech Competitive Scholarship

SKILLS

PROGRAMMING: FORTRAN, Basic HTML and JavaScript

MATHEMATICAL SYSTEMS: MAPLE, MATLAB, R, and SAS

LANGUAGES: Intermediate fluency in reading, writing and speaking German, Spanish and French