Curriculum Vitae

PAUL N. EDWARDS

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PROFESSIONAL POSITIONS

William J. Perry Fellow in International Security, Center for International Security and Cooperation, Freeman Spogli Institute, Stanford University (2017-present)

Professor, School of Information and Dept. of History, University of Michigan (2010-present)

Senior Fellow, Michigan Society of Fellows (2016-17)
Distinguished Faculty in Sustainability, Graham Sustainability Institute (2016-present)
Director, UM Science, Technology & Society Program (2000-03, 2005-06, 2010-2012)

Associate Professor, School of Information, University of Michigan (1999-2010) and Residential College, University of Michigan (1999-2004)

Visiting Professor

Sciences Po (Institut d'Études Politiques de Paris), Paris, France (2012-13)
Oslo Summer School in Comparative Social Sciences (2012)
Technische Universiteit Eindhoven, Netherlands (2007)

Visiting Scholar

University of Kwazulu-Natal, Durban, South Africa (2003-04)
University of Melbourne, Australia (2001)

Senior Research Scholar, Program in Science, Technology & Society, Stanford University (1997-1998)

Director, Information Technology & Society Project (1995-1997)
Lecturer, Program in STS and Dept. of Computer Science (1994-97)
Visiting Assistant Professor, Program in STS and Dept. of Computer Science (1992-1994)

Visiting Assistant Professor

School of Information and Residential College, University of Michigan (Fall 1997)
Dept. of Science and Technology Studies, Cornell University (1990-1992)

EDUCATION

Ph.D., History of Consciousness, University of California at Santa Cruz (1988)

Université de Paris VIII, Paris, France (1980-81, no degree)

B.A., Language and Mind, Wesleyan University (1980)

PUBLICATIONS

Books

A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming (Cambridge: MIT Press, 2010). Companion website includes supplemental materials, calendar of talks, and links to reviews, audio, video, and slides.

- Louis J. Battan Author's Award, American Meteorological Society, 2013
- Computer History Museum Book Prize, 2011
- Named a 2010 Book of the Year by *The Economist*
- Atmospheric Science Librarians International Choice Award (History category), 2010
- Reviews in *Science, Nature, American Historical Review, American Scientist, IEEE Annals of the History of Computing, Bulletin of the American Meteorological Society, Frankfurter Allgemeine,* and many others

Changing the Atmosphere: Expert Knowledge and Environmental Governance, eds. Clark Miller and Paul N. Edwards (Cambridge: MIT Press, 2001)

Changing Life: Genomes-Ecologies-Bodies-Commodities, eds. Peter Taylor, Saul Halfon, and Paul N. Edwards (Minneapolis: University of Minnesota Press, 1997)

The Closed World: Computers and the Politics of Discourse in Cold War America (Cambridge: MIT Press, 1996)

- Rachel Carson Prize: Honorable Mention, Society for Social Studies of Science, 1998

Translations:

- *Un monde clos: l'ordinateur, la bombe et le discours politique de la guerre froide* (Paris: Éditions B2, 2013) — re-publication as a mini-book, with a new preface, of a long excerpt from *The Closed World* (1996)
- "Eindämmung: Computertechnik und die Politik des kalten Krieges" (excerpt with additional new material), trans. Christoph Rosol, *Tumult* 38*: Container/Containment*, April 2012, 11-17
- "Construire le monde clos: l'ordinateur, la bombe, et le discours politique de la guerre froide" (excerpt) in *Les sciences pour la guerre: 1940-1960,* eds. Amy Dahan and Dominique Pestre (Paris: Éditions de l'École des hautes études en sciences sociales, 2004), 223-250
- クローズド・ワールド―コンピュータとアメリカの軍事戦略 (entire book), trans. Shoichi Fukaya (Tokyo: Nihon Hyoronsha, 2003)

Articles and book chapters (many downloadable at pne.people.si.umich.edu)

Jean-Christophe Plantin, Carl Lagoze, and Paul N. Edwards, "De-integrated infrastructures, re-centralizing platforms: the platformization of data sharing and its effects on scholarship," *Big Data & Society* (forthcoming 2017)

Bruno J. Strasser and Paul N. Edwards, "Big data is the answer… but what is the question?", *Osiris* 32, special issue on "Histories of Data" (forthcoming 2017)

Melissa Chalmers and Paul N. Edwards, "Producing 'One Vast Index': Google Book Search as an Algorithmic System," *Big Data & Society* (2017), July-December, 1-16

 "The Mechanics of Invisibility: On Habit and Routine as Elements of Infrastructure," in I. Ruby & A. Ruby (eds.), *Infrastructure Space* (Berlin: Ruby Press, 2017), 327-336

Jean-Christophe Plantin, Carl Lagoze, Paul N. Edwards, and Christian Sandvig, "'Big data' is not about size: when data transform scholarship," in C. Mabi, J-C. Plantin, and L. Monnoyer-Smith, eds., *Ouvrir, Partager, Réutiliser: Regards critiques sur les données numériques* (Paris: Éditions de la Maison des sciences de l'homme, 2017), books.openedition.org/editionsmsh/9103

"Knowledge Infrastructures for the Anthropocene," *The Anthropocene Review,* special issue on 'The Technosphere,' 4:1 (2017), 34-43

"Downscaling: From Global to Local in the Climate Knowledge Infrastructure," in Penny Harvey, Casper Bruun Jensen, and Atsuro Morita (eds.), *Infrastructures and Social Complexity* (London: Routledge, 2016), 339-351

"Control Earth," *LA+ Interdisciplinary Journal of Landscape Architecture* 4 (2016), 10-15. Republished in *Places Journal* (November 2016), placesjournal.org/article/control-earth/

Jean-Christophe Plantin, Carl Lagoze, Paul N. Edwards, and Christian Sandvig, "Infrastructure studies meet platform studies in the age of Google and Facebook," *New Media & Society* 10 (2016), 1-18

"Afterworld," in Rens van Munster and Casper Sylvest, eds., *The Politics of Globality since 1945: Assembling the Planet* (New York: Routledge, 2016), 188-196

"An Archive for the Future: Paul N. Edwards on Technology, Historiography, Self and World," interview by Alex Monea, *International Journal of Communication* 10 (2016), 3174-3185

"Wissensinfrastrukturen für das Anthropozän," in Jürgen Renn and Bernd Scherer (eds.), *Das Anthropozän: Zum Stand der Dinge* (Berlin: Matthes & Seitz, 2015), 242–25

"Gouverner le système Terre," in Dominique Pestre and Christophe Bonneuil (eds.), *Histoire des sciences et des savoirs, tome 3: Le siècle des technosciences (depuis 1914)* (Paris: Seuil, 2015), 398-421

Carl Lagoze, Paul N. Edwards, Christian Sandvig, and Jean-Christophe Plantin, "Should I stay or should I go? Exit, Voice, and Loyalty in Scholarly Publishing," *International Journal of Communication* 9 *(*2015), 1052–1071

Richard B. Rood and Paul N. Edwards, "Climate Informatics: Human Experts and the End-to-End System," *Earthzine,* May 2014 (online only)

"Predicting the Weather: A Knowledge Commons for Europe and the World," in *Cosmopolitan Commons: Sharing Resources and Risks across Borders,* eds. Eda Kranakis and Nil Disco (Cambridge: MIT Press, 2013), 155-184

"Entangled Histories: Climate science and nuclear weapons research," *Bulletin of the Atomic Scientists* 68:4 (2012), special issue on climate change, 28-40

"La complexité des données climatiques : étendue, traitement, controverses," in *Controverses climatiques: sciences et politiques,* eds. E. Zaccai, F. Gemenne and J.-M. Decroly (Paris: Presses de la Fondation Nationale des Sciences Politiques, 2012), 59-75

"Presenting a Paper," in Jason E. Miller and Oona Schmid, eds., *How to Get Published in Anthropology: A Guide for Students and Young Professionals,* American Anthropological Association(Arlington, VA: AltaMira Press, 2012), 24-37

Paul N. Edwards, Lisa Gitelman, Gabrielle Hecht, Adrian Johns, Brian Larkin, and Neil Safier, "AHR Conversation: Historical Perspectives on the Circulation of Information," *American Historical Review* 116:5, December 2011, 1393-1435

"Désenchantement," in *C'est l'espace! 101 savoirs, histoires, et curiosités,* eds. Gérard Azoulay and Dominique Pestre (Paris: Gallimard, 2011), 110-112

Steve M. Easterbrook, Paul N. Edwards, Venkatramani Balaji, and Reinhard Budich, "Guest Editors' Introduction," special issue of *IEEE Software* on "Climate Change: Science and Software" (November/December 2011), 30-33

Paul N. Edwards, Matthew S. Mayernik, Archer L. Batcheller, Geoffrey C. Bowker, and Christine L. Borgman, "Science Friction: Data, Metadata, and Collaboration," *Social Studies of Science* 41:5 (2011), 667–690

"Oral history of Edward S. Davidson, pioneer of supercomputer pipelining," Association for Computing Machinery SIGMICRO (2011), 148 pp.

"Oral history of Robert P. Colwell, Pentium engineer," Association for Computing Machinery SIGMICRO (2011), 164 pp.

"History of Climate Modeling," *Wiley Interdisciplinary Reviews: Climate Change,* Mike Hulme, ed.-in-chief. Online version 23 December 2010 (DOI: 10.1002/wcc.95)

"Some Say the Internet Should Never Have Happened," in *Media, Technology and Society: Theories of Media Evolution*, ed. W. Russell Neuman (Ann Arbor: University of Michigan Press, 2010), 141-160

Gabrielle Hecht and Paul N. Edwards, "The Technopolitics of Cold War: Towards a Trans-Regional Perspective," in Michael Adas, ed., *Essays on Twentieth Century History* (Philadelphia: Temple University Press-AHA, 2010), 271-314. Previously published as a stand-alone pamphlet in the American Historical Association series *Global and Comparative History*, ed. Michael Adas (Washington D.C.: American Historical Association, 2008).

Paul N. Edwards and Gabrielle Hecht, "History and the Technopolitics of Identity: The Case of Apartheid South Africa," *Journal of Southern African Studies,* 36:3 (September 2010), 619-639. Selected for Taylor & Francis "Africa Day 2011."

Geoffrey C. Bowker, Paul N. Edwards, Steven J. Jackson and Cory Knobel, "The Long Now of Cyberinfrastructure,' in W. H. Dutton and P.W. Jeffreys (eds), *World Wide Research: Reshaping the Sciences and Humanities* (Cambridge: MIT Press, 2010)

Paul N. Edwards, Geoffrey C. Bowker, Steven J. Jackson, and Robin Williams, "Introduction: An Agenda for Infrastructure Studies," special issue on e-Infrastructures, *Journal of the Association for Information Systems* 10:5, May 2009

"Schwache Disziplin: Der Macht-Wissen-Komplex in Netzwerken und der Niedergang des Expertentums," in *Vernetzte Steuerung: Soziale Prozesse im Zeitalter technischer Netzwerke,* ed. Stefan Kaufmann (Zürich: Chronos Verlag, 2007), 47-66

Steven J. Jackson, Paul N. Edwards, Geoffrey C. Bowker, and Cory P. Knobel, "Understanding Infrastructure: History, Heuristics, and Cyberinfrastructure Policy," *First Monday* (June 2007), www.firstmonday.org/issues/issue12_6/jackson/index.html

"'L'électronique rêvera pour vous': l'informatique rencontre l'information au cours des années Pompidou," in *Georges Pompidou et la modernité: les tensions de l'innovation, 1962-1974,* ed. Pascal Griset (Paris: Presses Universitaires de France, 2007), 159-170

R. Kelly Garrett and Paul N. Edwards, "Revolutionary Secrets: Technology's Role in the South African Anti-Apartheid Movement," *Social Science Computer Review* 25:1 (2007), 13-26

"Meteorology as Infrastructural Globalism," in John Krige and Kai-Henrik Barth, eds., *Global Power Knowledge: Science and Technology in International Affairs: Historical Perspectives, Osiris* 21 (2006), 229-250

Gabrielle Hecht and Paul N. Edwards, "Les techniques de la guerre froide dans une perspective mondiale: le nucléaire et l'informatique comme systèmes technopolitiques," in *Deux siècles d'histoire de l'armement en France: de Gribeauval à la force de frappe*, ed. Dominique Pestre (Paris: CNRS Éditions, 2005), 167-78

Spencer Weart with Paul N. Edwards, "General Circulation Models of Climate," *The Discovery of Global Warming,* expanded web version of Weart's book of the same title (Cambridge: Harvard University Press, 2004), http://www.aip.org/history/climate/GCM.htm

"'A Vast Machine': Standards as Social Technology," *Science* 304:5672 (May 7, 2004), 827-828

"Infrastructure and Modernity: Force, Time, and Social Organization in the History of Sociotechnical Systems," in Thomas J. Misa, Philip Brey, and Andrew Feenberg, eds., *Modernity and Technology* (Cambridge, MA: MIT Press, 2003), 185-225

"Modellen, Daten, Ungewissheit und die Politik in der weltweiten Klimawissenschaft," in *Klima: Das Experiment mit dem Planeten Erde*, ed. Walter Hauser (Munich: Deutsches Museum und Münchener Rücksversicherungs-Gesellschaft, 2002), 138-149

"Military Command-Control Systems and Closed World Politics" in Thomas Y. Levin, ed., *ctrl[space] - Rhetorics of Surveillance from Bentham to Big Brother*. Exhibition catalog, Zentrum für Kunst und Medientechnologie, Karlsruhe, Germany (Cambridge, MA: MIT Press, 2002)

"Pourquoi fabriquer les ordinateurs?" *La Recherche*, Paris, France. Invited article. Special issue: "La science et la guerre," hors série no. 7, April/June 2002, 21-26

"Science, Technology, and Concepts of the Global World," *The Journal of the International Institute* 8:3 (Summer 2001), University of Michigan

Clark Miller and Paul N. Edwards, "Introduction: The Globalization of Climate Science and Climate Politics," in *Changing the Atmosphere: Expert Knowledge and Environmental Governance,* eds. Clark Miller and Paul N. Edwards (Cambridge, MA: MIT Press, 2001), 1-30

"Representing the Global Atmosphere: Computer Models, Data, and Knowledge about Climate Change," in *Changing the Atmosphere: Expert Knowledge and Environmental Governance,* eds. Clark Miller and Paul N. Edwards (Cambridge, MA: MIT Press, 2001), 31-66

Paul N. Edwards and Stephen H. Schneider, "Self-governance and Peer Review in Science-for-Policy: The Case of the IPCC Second Assessment Report," in *Changing the Atmosphere: Expert Knowledge and Environmental Governance,* eds. Clark Miller and Paul N. Edwards (Cambridge, MA: MIT Press, 2001), 219-246

"Think Piece: Making History — New Directions in Computer Historiography," *IEEE Annals of the History of Computing* 23:1 (2001), 86-88

"A Brief History of Atmospheric General Circulation Modeling," in David A. Randall, ed., *General Circulation Model Development, Past Present and Future: The Proceedings of a Symposium in Honor of Akio Arakawa* (New York: Academic Press, 2000), 67-90

"The World in a Machine: Origins and Impacts of Early Computerized Global Systems Models," in *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After,* eds. Thomas P. Hughes and Agatha C. Hughes (Cambridge, MA: MIT Press, 2000), 221-254

"Global Climate Science, Uncertainty, and Politics: Data-Laden Models, Model-Filtered Data," *Science as Culture* 8:4 (1999), 437-472

"Y2K: Millennial Reflections on Computers as Infrastructure," *History and Technology* 15 (1998), special issue on computer history, 7-29

"Why Build Computers?," in Merritt Roe Smith and Gregory K. Clancey, eds., *Major Problems in the History of American Technology: Documents and Essays* (Boston: Houghton Mifflin, 1998), 454-462. Excerpted from *The Closed World* (1996), Chapter 2

Sheila Jasanoff and Brian Wynne, with contributions from Frederick H. Buttel, Florian Charvolin, Paul N. Edwards, Aant Elzinga, Peter M. Haas, W. Henry Lambright, Michael Lynch, Chunglin Kwa, and Clark A. Miller, "Science and Decisionmaking," in *Human Choice and Climate Change: The Societal Framework*, eds. Steve Rayner and Elizabeth L. Malone (Columbus, Ohio: Battelle Press, 1998), 1-87

"Bark Worse Than Bite: Response to Eric Weiss," *Minds and Machines* 8 (1998), 469-72

"Models in the Policy Arena," in Susan Joy Hassol and John Katzenberger, eds., *Elements of Change 1996* (Aspen, CO: Aspen Global Change Institute, 1997), 159-162

Paul N. Edwards and Stephen H. Schneider, "The 1995 IPCC Report: Broad Consensus or 'Scientific Cleansing'?" *Ecofables/Ecoscience* 1:1 (1997), 3-9

"The Terminator meets Commander Data: Cyborg Identity in the New World Order," in *Changing Life: Genomes-Ecologies-Bodies-Commodities,* eds. Peter Taylor, Saul Halfon, and Paul N. Edwards (Minneapolis: University of Minnesota Press, 1997)

Paul N. Edwards and Peter J. Taylor, "Changing Life in the New World (dis)Order," in *Changing Life: Genomes-Ecologies-Bodies-Commodities,* eds. Peter Taylor, Saul Halfon, and Paul N. Edwards (Minneapolis: University of Minnesota Press, 1997)

"Global Comprehensive Models in Politics and Policymaking," *Climatic Change* 32, 1996, 149-161

"Cyberpunks in Cyberspace: The Politics of Subjectivity in the Computer Age," in Susan Leigh Star, ed., *Cultures of Computing* (Keele, England: Sociological Review and Monograph Series, 1995), 69-84

"From 'Impact' to Social Process: Computers in Society and Culture," Chapter 12 of Sheila Jasanoff, Trevor Pinch, Gerald Markle, and James Petersen, eds., *Handbook of Science, and Technology Studies* (Beverly Hills: SAGE Publications, 1994)

"Hyper Text and Hypertension: Post-structuralist Critical Theory, Social Studies of Science, and Software," *Social Studies of Science* 24:2 (1994), 229-78

"The Army and the Microworld: Computers and the Politics of Gender Identity," *Signs* 16:1 (1990), 102-127. Reprinted in *Gender and Technology: A Reader*, eds. Nina Lerman, Ruth Oldenziel, Arwen Mohun, and Gerald Jensen (Baltimore: Johns Hopkins University Press, 2003)

"The Closed World: Systems Discourse, Military Policy, and Post-WWII US Historical Consciousness" in Les Levidow and Kevin Robins, eds., *Cyborg Worlds: The Military Information Society* (London: Free Association Books, 1989). An earlier version of this essay was published as "The Closed World: Systems Thinking and Military Discourse in Post-WWII Historical Consciousness," *AI and Society* 2:2 (1988)

"Computers in Weapons Systems: An Historical Overview," in Gary Chapman and David Bellin, eds., *Computers in Battle* (New York: Harcourt, 1987)

"Artificial Intelligence and High Technology War: The Perspective of the Formal Machine," Silicon Valley Research Group Working Paper #6 (Santa Cruz, 1986)

"Border Wars: The Science, Technology, and Politics of Artificial Intelligence," *Radical America* 19:6, April, 1986

"Technologies of the Mind: Computers, Power, Psychology, and World War II," Silicon Valley Research Group Working Paper #2 (Santa Cruz, 1985)

"Are 'Intelligent Weapons' Feasible? DARPA's Billion-Dollar Bet," *The Nation,* February 2, 1985

Reports

Bruno J. Strasser and Paul N. Edwards, *Open Access: Publishing, Commerce, and the Scientific Ethos,* Report to the Swiss Science and Innovation Council (SSIC), 2015. 43 pp.

Paul N. Edwards, Steven J. Jackson, Melissa Chalmers, Geoffrey C. Bowker, Christine L. Borgman, David Ribes, Matt Burton, and Scout Calvert, *Knowledge Infrastructures: Intellectual Frameworks and Research Challenges.* Report of a workshop sponsored by the National Science Foundation and the Sloan Foundation (Ann Arbor: Deep Blue, 2013), hdl.handle.net/2027.42/97552. 40 pp.

Steven J. Jackson, Archer L. Batcheller, Paul N. Edwards, Geoffrey C. Bowker, Steve Cisler, and Susan Leigh Star, *Extending African Knowledge Infrastructures: Sharing, Creating, Maintaining — A Report and Proposal for the World Bank Knowledge for Development Program* (University of Michigan, March 2008). 42 pp.

Paul N. Edwards, Steven J. Jackson, Geoffrey C. Bowker, and Cory P. Knobel, *Understanding Infrastructure: Dynamics, Tensions, and Design. Report of the NSF Workshop on History & Theory of Infrastructure: Lessons for New Scientific Cyberinfrastructures* (Ann Arbor: Deep Blue, 2007), hdl.handle.net/2027.42/49353. 50 pp.

Christopher A. Lee, Brian S. Williams, and Paul N. Edwards, "Evaluating Information and Communications Technology: Perspectives for a Balanced Approach." Report to the W. K. Kellogg Foundation, December 17, 2001. 128 pp.

Websites and blogs

Paul N. Edwards, Geoffrey C. Bowker, Christine Borgman, Steven J. Jackson, Jillian Wallis, and David Ribes, Knowledge Infrastructures, final report of the Knowledge Infrastructures research group

A Vast Machine, blog with news and opinion related to the book (no longer maintained)

Christopher A. Lee, Brian S. Williams, and Paul N. Edwards, Evaluating Information and Communications Technology: Perspectives for a Balanced Approach, June 2003. Web version of report to the W.K. Kellogg Foundation. Reviews recent literature on the social impacts of ICTs. Includes executive summary; annotated bibliography summarizing more than 50 books, articles, and websites; transcripts of 8 interviews with leading experts; and a bibliography of over 290 books, articles, and websites.

Atmospheric General Circulation Modeling: A Participatory History (no longer maintained). Funded by the Sloan Foundation under a consulting arrangement with the Center for the History of Physics at the American Institute of Physics. A heavily modified version of this website has been integrated into the AGCM Family Tree at the website for *A Vast Machine*.

Information Technology and Society Project (no longer maintained). A networked, distributed multimedia digital library on the recent history of high technology. The project ended in 1998.

Book reviews

Michael Gordin, *Scientific Babel: How Science was Done Before and After Global English* (Chicago: University of Chicago Press, 2016), in *American Historical Review,*

Rebecca Slayton, *Arguments that Count: Physics, Computing, and Missile Defense, 1949-2012* (Cambridge, MA: MIT Press, 2013), in *Information & Culture*, September 2014

James R. Fleming, *Fixing the Sky: The Checkered History of Weather and Climate Control* (New York: Columbia University Press, 2010), *H-Environment Roundtable Reviews* 1:3 (2011), 14-21

Fernando Elichirigoity, *Planet Management: Limits to Growth, Computer Simulation, and the Emergence of Global Spaces* (Evanston, Ill.: Northwestern University Press), in *Isis* 91:4 (2000), 828-9

"Virtual Machines, Virtual Infrastructures: The New Historiography of Information Technology," invited essay review, in *Isis* 89:1 (1998), 93-99. Review of James J. Cortada, *Information Technology as Business History* (Westport, CT: Greenwood Press, 1996); Martin Campbell-Kelly and William Aspray, *Computer: A History of the Information Machine* (New York: Basic Books, 1996); Arthur L. Norberg and Judy E. O'Neill, *Transforming Computer Technology: Information Processing for the Pentagon, 1962-1986* (Baltimore: Johns Hopkins University Press, 1996); Katie Hafner, *Where Wizards Stay Up Late: the Origins of the Internet* (New York: Simon and Schuster, 1996); Rochlin, Gene I., *Trapped in the Net: The Unanticipated Consequences of Computerization* (Princeton, NJ: Princeton University Press, 1997); and Thomas K. Landauer, *The Trouble with Computers: Usefulness, Usability, and Productivity* (Cambridge, MA: MIT Press, 1995)

Donald Mackenzie, *Knowing Machines* (Cambridge, MA: MIT Press, 1996), in *Technology & Culture* 38:4 (1997), 962-964

Bruno Latour, *Aramis, or the Love of Technology* (Cambridge, MA: Harvard University Press, 1996), feature review in *Isis* 88:2 (1997), 322-324

Evelyn Fox Keller, *Refiguring Life: Metaphors of Twentieth-Century Biology* (New York: Columbia University Press, 1995), in *Isis* 88:1 (1997), 159-60

Martin Campbell-Kelly and William Aspray, *Computer: A History of the Information Machine* (New York: Basic Books, 1996), in *IEEE Spectrum* 34:2 (February, 1997), 10

J.A.N. Lee, *Computer Pioneers* (Los Alamitos, CA: IEEE Computer Society Press, 1996), in *Technology & Culture* 37:4 (October, 1996), 860-61

Emerson Pugh, *Building IBM: Shaping an Industry and Its Technology* (Cambridge, MA: MIT Press, 1995), in *Technology & Culture* 37:2 (April, 1996), 385-87

Michael Schiffer, *Technological Perspectives on Behavioral Change* (Phoenix: University of Arizona Press, 1994), in *Technology & Culture* 36:3 (July, 1995)

Pedagogical essays

These short essays undergo regular revision. Both have been widely circulated on the Internet.

How to Give an Academic Talk (1997-2017)

How to Read a Book (1996-2015)

Works in progress

Knowledge Infrastructures for the Anthropocene, a collection of essays

The Technopolitics of Apartheid in Southern Africa, with Gabrielle Hecht and Keith Breckenridge. Project under development.

Resident Fellow, Institute for Advanced Study in Media Cultures of Computer Simulation, Leuphana University, Lüneburg, Germany, June 2015

Awards for *A Vast Machine* (MIT Press, 2010)

- Louis J. Battan Author's Award, American Meteorological Society, 2013
- Computer History Museum Book Prize, Society for the History of Technology: Special Interest Group on Computers, Information, and Society, 2011
- A "2010 Book of the Year," *The Economist* magazine
- Atmospheric Science Librarians International Choice Award (History category), 2010

Dean's Outstanding Achievement Award, School of Information, University of Michigan, 2011

National Science Foundation grant, co-PI, "Scaling up: Introducing commodity governance into community Earth science modeling." Cyber-Enabled Discovery and Innovation competition. Four-year award to develop virtual organizations in support of Earth system modeling at currently inaccessible scales of participation, computing power, and scientific complexity. Project team includes software developers, Earth system modelers, human-computer interaction specialists and ethnographers at the National Center for Atmospheric Research, the University of Michigan, the University of Colorado, and the Geophysical Fluid Dynamics Laboratory. Total award: $2.1 million, 2009-2013

National Science Foundation grant, co-PI, "Team Science: Sociotechnical Dimensions of Distributed Work." EAGER competition. Two-year pilot study of how effective interdisciplinary, distributed teams emerge in modern science. Project team includes PI Geof Bowker and postdoctoral fellow Scout Calvert (UC Irvine/Michigan State University). Total award: $300,000, 2009-2011

National Science Foundation grant, lead PI, "Monitoring, Modeling, And Memory: Dynamics of Data and Knowledge in Scientific Cyberinfrastructures." Human and Social Dynamics competition. Comparative analysis of scientific cyberinfrastructures using ethnographic, historical, and information-scientific methods. Project team included 5 co-PIs (UM, UCLA, and Santa Clara University) and three graduate students. Total award: $1.2 million, 2008-2011

National Science Foundation conference grant, lead PI, conference series on *History & Theory of Infrastructure: Distilling Lessons for New Scientific Cyberinfrastructures*. Three meetings: initial workshop at National Science Foundation June 26, 2006; major conference at University of Michigan (35 participants) Sept. 28-Oct. 1, 2006; report-out workshop at National Science Foundation, Dec. 15, 2006. Co-PIs Geof Bowker, Santa Clara University, and Steve Jackson, UM. Total award: $91,911

Carnegie Scholars Award, "The Technopolitics of Information Infrastructure in South Africa: Apartheid, Regime Change, and Legitimate Sovereignty," Carnegie Corporation of New York, 2003-05

John Simon Guggenheim Memorial Fellowship, "The Technopolitics of Information Infrastructure in South Africa," 2003-04

Charles D./Christella D. Moody South Africa Initiative Fund, travel and research grant to support "The Technopolitics of Information Infrastructure in South Africa,." 2003-04

W. K. Kellogg Foundation Research Grant, "Toward a Balanced Approach to Information and Communications Technology." Principal investigator: Paul N. Edwards. Award: $20,500, 2000-2002

Rachel Carson Prize: Honorable Mention, 1998. Awarded by the Society for Social Studies of Science for *The Closed World: Computers and the Politics of Discourse in Cold War America* (1996)

National Science Foundation Research Grant, "Models, Data, Technology, and Politics: Climate Science in Historical Context." Award: $152,000, 1997-2001

Consultant, Sloan Foundation Research Grant, "Using the World-Wide Web to Document the Recent History of Atmospheric Science." Principal organizer: Spencer Weart. Organizations: Center for the History of Physics, of the American Institute of Physics; American Meteorological Society; American Geophysical Union. My role as consultant: document the history of general circulation models of the atmosphere from 1956 through the advent of coupled ocean-atmosphere models in the mid-1980s, 1997-2000

National Science Foundation Professional Development Fellowship, "Atmospheric Science and Environmental Politics," 1993-94

Peace Studies Program/MacArthur Foundation Research Grant, Cornell University, 1991-92

Fellow, Institute on Global Conflict and Cooperation, Summer Seminar on Global Security and Arms Control, 1987 (La Jolla, CA), 1988 (Sussex, UK)

MEDIA AND PUBLIC ENGAGEMENT

"Climate Change: History, Controversy, Knowledge," invited lecture, Society of Active Retirees, Farmington Hills, MI, February 2017

"Trump questionnaire recalls dark history of ideology-driven science," *The Conversation*, December 15, 2016. Over 57,000 page views.

Co-leader, University of Michigan observer delegation to the 21st Conference of Parties to the UN Framework Convention on Climate Change, Paris, France, December 2015

"Who feels the heat first?", COP21 Blog, *The Conversation*, December 2, 2015

"Passer à une économie décarbonée, c'est pour quand ?", in *The Conversation* — France, November 27, 2015

"How fast can we transition to a low-carbon energy system?", in *The Conversation*, November 23, 2015. Over 13,000 views.

Co-organizer, Michigan Meeting on Academic Engagement in Public and Political Discourse, May 13-15, 2015

Speaker, Climate Voices: Science Speakers Network

TV spot, "It's Getting Hot in Here: Climate Change Myths, Debunked," NBC Universal, September 2014

TV spot, "30 Seconds to Know: What is a global temperature?", NBC Universal, September 2014. Over 10,000 views.

Interview (25-minute podcast), Place de la Toile, Radio France (in French), February 2013

Webinar on *A Vast Machine*, Chevron Corporation (uncompensated)

Radio interview with C.S. Soong, KPFA FM, Berkeley CA, August 2010

Numerous interviews and consultations with journalists from *Wired, Motherboard, New York Times, Underfire, Rorotoko,* and others

INVITED LECTURES AND SEMINARS

Keynote: "Knowledge Infrastructures under Siege," Governing by Prediction? Models, Data, and Algorithms in and for Governance, Paris, September 2017

Keynote: "Knowledge Infrastructures under Siege: Environmental Data Systems as Memory, Truce, and Target," Data Power 2017, Carleton University, Ottawa, Canada, June 2017

"Time and Risk in Climate Knowledge: An Infrastructure Perspective," University of Oslo, March 2017

"Control Earth," Dow Sustainability Fellows, Ann Arbor, MI, December 2016

"The Glass Laboratory: Climate Knowledge Infrastructures in the Age of Hypertransparency," Graduate Center, City University of New York, October 2016

"Afterworld: Technosphere, Anthropocene, Geostory," Center for Cultural Studies, University of California, Santa Cruz, October 2016

"Technology, Space, Reason: Infrastructures of Knowledge in the Anthropocene," Dept. of Rhetoric and Center for Science, Technology, Medicine, and Society, University of California, Berkeley, October 2016

"Data, Models, and Knowledge in Climate Science: Historical Lessons and Contemporary Controversies," Information Science & Technology Colloquium, NASA Goddard Space Flight Center, September 2016

"Too much C-what? Carbon Accounting and Anthropocene Knowledge," Climate Change: Disciplinary Challenges to the Humanities and Social Sciences Symposium, Neubauer Collegium for Culture and Society, University of Chicago, June 2016

"Knowledge Infrastructures for a Changing Planet: The Past, Present, and Future of relations between Climate Science and Nuclear Weapons Research," Center for International Security and Cooperation, Stanford University, May 2016

"The Mechanics of Invisibility: On Habit and Routine as Elements of Infrastructure," Infrastructure Space: 5th International LaFargeHolcim Forum, Detroit, April 2016

"Time Crimes: The 20th Century's Long Now," Eisenberg Institute for Historical Studies, University of Michigan, March 2016

"The Glass Laboratory: Climate Knowledge Infrastructures in the Age of Hypertransparency," Stanford University, February 2016

"Knowledge Infrastructures in the Age of Hypertransparency: the case of climate science," Geophysical Fluid Dynamics Laboratory, Princeton University, January 2016

"Time and Risk in Climate Knowledge: An Infrastructure Perspective," semi-plenary session, European Sociological Association, Prague, August 2015

"Knowledge Infrastructures for the Anthropocene," keynote address, conference on Dealing With Climate Change: Calculus & Catastrophe in the Age of Simulation, Leuphana University, Lüneburg, Germany, June 2015

"Time Crimes: The 20th Century's Long Now," Tribunal: A Trial Against the Transgressions of the 20th Century, Zentrum für Kunst und Medientechnologie, Karlsruhe, Germany, June 2015

"Knowledge Infrastructures and Climate Change Science," keynote address, Media-Epistemologies-Symposium, North Carolina State University, April 2015

"Climate Data Detectives: On the Politics of Knowledge about Global Climate Change," presented at Yale University, University of Southern California, and UC Santa Barbara, January-March 2015

"Rules of Procedure: IPCC Peer Review in the Public Arena, 1990-2014," conference on Confiance, crédibilité, autorité dans les sciences et politiques du climat, Centre Alexandre Koyré, Paris, November 2014

"Knowledge Infrastructures and Climate Change Science," conference on Knowledge and Models in Climate Science, Rotman Institute of Philosophy, University of Western Ontario, October 2014

"Knowledge Infrastructures and Climate Change Science," University of Tokyo, July 2014

"Governance and Cyberinfrastructure in the Earth System Sciences," keynote address, NSF EarthCube all-hands meeting, Washington D.C., June 2014

"The Glass Laboratory: Science meets Accounting in an Age of Hypertransparency," keynote address, Postman Graduate Conference, New York University, February 2014

"Organization of Knowledge in Climate Change Research," conference on Nuclear Arms Control and Climate Change Negotiations: Shared Lessons and Possibilities, University of Texas, Austin, January 2014

"Cold War and Carbon Knowledge: The Strange Relations of Climate Science and Nuclear Weapons Research," Sandia National Laboratories, Albuquerque, NM, December 2013

"Knowledge Infrastructures and Climate Change: Past, Present, Future," Los Alamos National Laboratory, December 2013

"Knowledge Infrastructures: Intellectual Frameworks and Research Challenges," Rutgers University, December 2013

"Code, Community, and Trust in Climate Science," University of Wisconsin, Milwaukee, November 2013

"Knowledge Infrastructures and Climate Change Science," University of Missouri, November 2013

"The History of Climate Change and the Future of Global Governance," 2-day intensive PhD seminar, Hertog Global Strategy Initiative, Columbia University, New York, June 2013

"Scaling Up: Space, code, trust, and the organization of climate modeling work," Technische Universität Berlin, Germany, May 2013

"Knowledge Infrastructures and Climate Change: Past, Present, Future," Université de Genève, Switzerland, May 2013

Keynote address, 26th PhD Workshop on International Climate Policy, Paris, April 2013

"Cold War and Carbon Knowledge: The Strange Relations of Climate Science and Nuclear Weapons Research," École des Hautes Études en Sciences Sociales, Paris, March 2013

"Global infrastructures and the politics of climate change," London School of Economics, London, March 2013

"Scaling Up: Space, code, trust, and the organization of climate modeling work," School of Informatics, University of Edinburgh, March 2013

"Les bases de données scientifiques: métadonnées, accessibilité et potentiels d'usage," Symposium: de la Data Science à l'infovisualisation, Gobelins l'école de l'image, Paris, February 2013

"Modélisation et enjeux politiques du réchauffement climatique," Sorbonne Université, Paris, January 2013

"A Wish List for Anthropocenic Research," Anthropocenic Research Roundtable, Haus der Kulturen der Welt, Berlin, January 2013

"Governance and Cyberinfrastructure in the Earth System Sciences," University of California at Irvine, December 2012

"Climate Audit, Climategate, and the Future of Public Science in an Age of Hypertransparency," Erb Institute, University of Michigan, December 2012

"Fallout Research, Carbon Knowledge, and the Politics of the Atmosphere, 1945-1989," conference on Facts, Artifacts, and the Politics of Consensus, Northwestern University, May 2012

Paul N. Edwards and Gabrielle Hecht, "After Fukushima: Climate Change, Nuclear Things, and their Entangled Histories," Michigan Economic Dinner Group, April 2012

Paul N. Edwards and Gabrielle Hecht, "Knowing the Invisible: Climate Change, Nuclear Things, and their Entangled Histories," Cultures of Energy Working Group, Rice University, Houston, February 2012

"The History of Infrastructures and the Future of Climate Modeling," *A National Strategy for Advancing Climate Modeling,* panel of the National Academy of Sciences, Division on Earth & Life, Washington D.C. October 2011

"Uncertain about Uncertainty: Talking about Climate Knowledge to Non-Scientists," Stephen H.

Schneider Symposium on "Climate Change: From Science to Policy," Boulder, August 2011

"Climate Controversies: Science and the Politics of Knowledge about Global Climate Change," Dept. of History and Dept. of Atmospheric and Oceanic Science, University of Maryland, May 2011

"Climate Data, Computer Models, and the Politics of Global Warming," Wesleyan University, April 2011

"A Vast Machine," Chevron Climate Energy Environment webinar series, online, March 2011 (*pro bono*: I take no payment from entities with political stakes in climate change issues)

"Science Institutions and Open Data: Opportunities and Barriers," *The Future of Scientific Knowledge Discovery in Open Networked Environments: A National Symposium and Workshop,* organized by the Board on Research Data and Information in collaboration with the Computer Science and Telecommunications Board, National Academy of Sciences, March 2011

"Global Warming Controversies: Data, Models, and the Politics of Climate Change," Wayne State University, February 2011

"Climate controversies in the USA: the politics of data," Colloque Controverses Climatiques, Brussels, October 2010 (in English with bilingual slides)

"La friction et la connaissance climatique: sur la matérialité des données et du calcul dans la science du climat," Centre Alexandre Koyré, Paris, October 2010

"'Climategate' et les controverses climatiques aux USA," Ecole Normale Supérieure, Paris, October 2010

"Friction: Rethinking Speed, Power, and Possibility in the History of Information Infrastructures," keynote address to the Society for the History of Technology Special Interest Group on Computers, Information and Society, September 2010

"Data, Models, and Knowledge in Climate Science: why 'uncertain' is not the same as 'unsure,' 'dubious,' or 'unknown'," Current Challenges in Computing 2010: Climate Modeling, Institute for Scientific Computing Research, Lawrence Livermore National Laboratory, August 2010

"Versions of the Atmosphere: Climate Models, Data Models, Global Space and Time," Media, Technology & Society Program, Northwestern University, April 2010

"Cold War, Nuclear Winter, and Global Environmental Knowledge: Infrastructures for Planetary Sensing and Surveillance," Center for Advanced Security Theory (CAST), University of Copenhagen & Design of Organizational IT (DOIT), IT University of Copenhagen, December 2009

"Doomsday Data: Climate Models and Global Time," conference on Data Traces of the Planetary Disaster, Graduate School on Media of History/History of Media, Weimar University, Weimar, Germany, October 2009

"Versions of the Atmosphere: Climate Models, Data Models, Global Space and Time," keynote address, conference on Modeling Spaces, Modifying Societies, Darmstadt University of Technology, Darmstadt, Germany, October 2009

"Computers, Apartheid, and Information Infrastructure in South Africa, 1960-2000," Engaging Africa/ Advancing African Studies, University of Michigan, March 2009

"Climate Science as a Global Knowledge Infrastructure," Dept. of History and Sociology of Science, University of Pennsylvania, September 2008

"Making Data Global: Computer Models as Tools for Knowledge Integration," European-American Conference on Management of Climate Change Research, Institute for International Studies, UC Berkeley, May 2008

 "Weak Discipline: Network Power/Knowledge and New Knowledge Infrastructures," Technology & Society Program, University of Maastricht, Netherlands, June 2007

"Réseaux mondiaux de données et savoirs sur le changement climatique," Centre Alexandre Koyré, Centre de Recherche en Histoire des Sciences et des Techniques, Paris, France, May 2007

"What Historians Know about Infrastructure, and How Policymakers can Use It," Dept. of History of Technology, Technical University of Eindhoven, Netherlands, April 2007

"Understanding Infrastructure: Dynamics, Tensions, and Design," Next Generation Infrastructures Project, Technical University of Delft, Netherlands, April 2007

"Simulation, modélisation, et infrastructure de données dans l'histoire de la climatologie mondiale," Colloque Entre-Sciences: Evolutions climatiques – approches interdisciplinaires, Muséum National d'Histoire Naturelle, Paris, France, March 2007

"Cyberinfrastructure for the Sciences: What Social Science can Contribute, and Learn," Virtual Knowledge Studio, Royal Netherlands Academy of Arts & Sciences, Amsterdam, March 2007

"Transnational Infrastructures and the Making of Contemporary Europe," opening address, *First International Workshop on Transnational infrastructures and the Rise of Contemporary Europe,* April 2006

"The Internet Should Never Have Happened, or…Why the Internet Was Completely, Utterly Inevitable," workshop on *Media, Technology, and Society: The Challenge of Digital Convergence,* University of Michigan, March 2006

 "The Node-Link Individual and the Decline of the Expert Mind: Unraveling Power/Knowledge in the Information Age," keynote address, *International Symposium on Networks as Modalities of Socio-Technical Governance,* Swiss Federal Institute of Technology, Zürich, Switzerland, September 2005

Paul N. Edwards and Gabrielle Hecht, "Technopolitics and the Translucent State: Apartheid South Africa, the Anti-Apartheid Movement, and the Cold War," Northwestern University, April 2005

"Global Knowledge Infrastructures," Science and Society Program, Wesleyan University, April 2005

"Global Knowledge Infrastructures: Monitoring and Surveillance as Epistemology," Science Studies Program, University of California at San Diego, April 2005

"‹‹L'Électronique rêvera pour vous››: l'informatique rencontre l'information au cours des années Pompidou," colloquium of the Association Georges Pompidou on *La France de Georges Pompidou dans la modernité: les tensions de l'innovation, 1962-1974,* National Assembly, Paris, France, March 2005

"Global Knowledge Infrastructures and the Increasing Reality of Anthropogenic Climate Change across the 20th Century," conference on *Whole Earth Systems: Science, Technology and Policy* (Festschrift for Stephen H. Schneider), Stanford University, February 2005

"Infrastructure and/as Environment: Design as the Naturalization of Politics," conference on *The Constructed Environment: Design and the Discourses Of Naturalization,* Temple Hoyne Buell Center for the Study of American Architecture, Columbia University, New York, October 2004

"Infrastructural Epistemology: Global Networks and Global Knowledge," conference on *The Power and Pathology of Networks*, InfoTechWarPeace Project, Watson Institute, Brown University, September 2004

"Slipping through the Web: Computers and U.S. Global Power from the Cold War to September 11, 2001," Mediamatic Institute, Amsterdam, Netherlands, December 2003

"Thinking Globally: Computers, Networks, and the Construction of 'Global' Spaces," Piet Zwart Institute, Rotterdam, Netherlands, December 2003

"Computers, Apartheid, and the Technopolitics of Regime Change: South Africa 1970-2003," History of Technology Dept. and Technology & Sustainability Studies Dept., Eindhoven University of Technology, Netherlands, December 2003

"The World in a Machine," Dept. of Historical Studies, University of Natal, Durban, South Africa, October 2003

"The University of Michigan Science, Technology & Society Program," Working Group on Science and Society, Wayne State University, May 2003

"Thinking Globally: Computers, Networks, and the Construction of 'Global' Spaces," Dept. of Anthropology, University of Chicago, March 2003

"Computers, Networks, and Global Spaces," Leading Edge Seminar in the Social Sciences, Oberlin College, March 2002

"Slipping through the Web: Computers and U.S. Global Power from the Cold War to September 11, 2001," Zentrum für Kunst und Medientechnologie, Karlsruhe, Germany. Part of a distinguished lecture series organized around a museum exhibition, *ctrl[space] - Rhetorics of Surveillance from Bentham to Big Brother,* curated by Thomas Y. Levin, Princeton University. Exhibit website: http://ctrlspace.zkm.de/e/. February, 2002

"Thinking Globally: Computers, Networks, and the Construction of Global Space(s)," Colloquium on the History and Philosophy of Science, Northwestern University, January 2002

"Global Information Infrastructures and Global Knowledge," International Seminar Series on Frontiers in the History of Technology, Eindhoven University of Technology (EUT), Netherlands. Part of a day-long intensive session on my work for EUT doctoral students, November, 2001

Panel on "The Role, Structure, and Significance of Graduate Programs," Kennedy School of Government, Harvard University. Part of *Beyond the Two Cultures: STS and the Liberal Arts,* a workshop for deans and provosts of major universities, sponsored by the Society for Social Studies of Science with funding from the National Science Foundation, November 2001

"Cold War Legacies," Sawyer Seminar on Cold War as Global Conflict, International Center for Advanced Studies, New York University, October 2001

"Thinking Globally: Computers, Networks, and the Construction of "Global" Space(s)," Dept. of History and Philosophy of Science, University of Melbourne, Australia, July 2001

"Thinking like a Planet: Climatology, Information Infrastructures, and the Construction of Global Space," Bureau of Meteorology Research Centre, Melbourne, Australia, July 2001

Gabrielle Hecht and Paul N. Edwards, "Techniques de la guerre froide en perspective mondiale: le nucléaire et l'informatique comme systèmes technopolitiques." Colloquium on *Armement, Stratégie, Nation: De Gribeauval à la force de frappe,* Comité pour l'histoire de l'armement, École Militaire, Paris, France, January, 2001

"Systems, Networks, and Webs: Toward a History of Digital Convergence," Dept. of Science and Technology Studies and Dept. of Computer Science, Cornell University, October, 2000

"Systems, Networks, and Webs: Toward a History of Digital Convergence," Program in Science, Technology & Society, MIT, March 2000

"Infrastructure and Modernity: Scales of Force, Time, and Social Organization in the History of Sociotechnical Systems," conference on *Technology and Modernity: The Empirical Turn*, University of Twente, Netherlands, November 1999

"Models and the Politics of Uncertainty," Science Dynamics Group, University of Amsterdam, Netherlands, May 1999

"Les modèles numériques et la politique de l'incertitude scientifique dans la science globale du climat," seminar on *Modèles, modélisations en sciences physiques et en sciences sociales,* École des Ponts et Chaussées, Paris, France, May 1999

"L'ordinateur et la défense aérienne: le projet WHIRLWIND et la politique de la Guerre Froide aux États-Unis, 1945-58," seminar on *Sciences et Armament au 20e siècle,* Centre Alexandre Koyré, Paris, France, May 1999

"Vigilance and Vacuum Tubes: The SAGE System, 1956-63," Computer Museum History Center, May 1998

"Early Computer Models of Global Phenomena: Weather, Climate, and Planetary Limits," Cold War Science & Technology Studies Program, Dept. of History, Carnegie-Mellon University, February 1998

"The World in a Machine: History and Politics of Global Climate Models, 1945-92," Program in History and Philosophy of Science Lecture Series, John J. Reilly Center, University of Notre Dame, February 1998

"A GCM Family Tree: The Major Climate Models and Their Descendants," Symposium on General Circulation Model Development: Past, Present, and Future, Dept. of Atmospheric Science, University of California at Los Angeles, January 1998

"Computer Models and the Politics of Uncertainty in Global Climate Science," Observations of Nature Conference, Dept. of Science & Technology Studies, Cornell University, December 1997

"The World in a Machine: Origins and Impacts of Early Computerized Global Systems Models," Humanities and the Environment Research Focus Group, University of California at Santa Barbara, May 1997. Also presented, by invitation, to Graduate School of Library and Information Science, University of Illinois at Champaign/Urbana, October 1996. Originally an invited paper for the conference on "The Spread of the Systems Approach in the Sciences," Dibner Institute for the History of Science and Technology, May 1996

"The Closed World: Computers, Military Power, and Political Identity after WWII," Dept. of History of Science, University of Oklahoma, April 1997

"Fire & Ice: Modeling the Future of Climate and Life," School of Information, University of Michigan, April 1997

"Inside the Closed World: 2001 as Cold War Allegory," conference on "Opening The Pod Bay Doors: Critique, Control And Computers," Cyberfest '97, University of Illinois at Champaign/Urbana, March 1997

"Global Comprehensive Models and Global Climate Politics," Aspen Global Change Institute, August 1996

"Computer Models and the Politics of Climate Change," conference on "Climate Communications as a Research Field in the Social Sciences," Center for Interdisciplinary Studies, University of Bielefeld, Germany, September 1995

"Earth Systems Models and Problems of Global Change," Conference on Climate Change and the Social Sciences, Cornell University, September 1994

"Technologies of Language and Mind: Computer and Information Metaphors in Post-WWII American Psychology," Walter Rathenau Sommerakademie on "Communicating Nature," Berlin, Germany, July 1994

"From Cyberspace to Virtual Reality: Computers, War, and Subjectivity in the New World Order," Student Pugwash USA annual National Meeting, Stanford University, January 1994

"Noise, Communication, and Cognition: The Harvard Psycho-Acoustic Laboratory and the Second World War," Psychology Dept. Seminar Series, University of Pennsylvania, October 1993

"Origins of Cognitive Psychology: The Harvard Psycho-Acoustic Laboratory and Human-machine Integration," Center for the Study of Language and Information, Stanford University, April 1993

"History of Computing: Government Support for Computer R&D," Stanford Computer Forum Annual Meeting, January 1993

"Cyberpunks in Cyberspace: The Politics of Subjectivity in the Computer Age," Commonwealth Center for Literary and Cultural Change, series on "Computing and New Cultural Forms," University of Virginia Humanities Center, October 1992. Also presented, by invitation, to Symbolic Systems Forum, Stanford University, November 1992

"The Closed World: Computers, Artificial Intelligence, and Post-WWII US Historical Consciousness," Williams College lecture series on "Technology and Politics," January, 1991

"Environmental Issues as International Security Problems in the Pacific Rim," California Seminar Conference on Pacific Rim Security, RAND Corporation, March 1989

"History of Cognitive Psychology," Wesleyan University Psychology Colloquium, November 1987

CONFERENCE PRESENTATIONS

Paul N. Edwards and Matthew Mayernik, "Model Intercomparison Projects as Organizational Forms, Traveling Codes: Circulation and Adaptation of Models, Data, and Standards in Computer-Based Environmental Science, Leuphana Universität Lüneburg, Germany, March 2017

Gabrielle Hecht and Paul N. Edwards, "Fighting the Technosphere, and other Anthropocenic Angsts (A Kitchen Debate)," Society for Social Studies of Science, Barcelona, September 2016

"Architecture, Violence, Routine: Infrastructural Legacies of Apartheid," Mellon Workshop on Technology Studies in Africa, Durban, South Africa, July 2016

"On Infrastructure Time: Software, Speed, and Second-order Systems in Africa," Shift CTRL: New Perspectives on Computing and New Media, Stanford University, May 2016

"Cage Fight: Infrastructure Studies vs. Platform Studies," panel organized for the Society for Social Studies of Science, Denver, November 2015

"Mesozoic Theater: Representing Global Climate Change, Fast and Slow," Society for the History of Technology, Dearborn, November 2014

Christian Sandvig, Paul N. Edwards, Jean-Christophe Plantin, and Carl Lagoze, "Histories of future networks : Exit, voice and loyalty in alternative infrastructures," conference on Reclaiming the Internet with distributed architectures: rights, technologies, practices, innovation, Mines ParisTech, Paris, October 2014

"From Black Box to Glass Box: Science meets accounting in an age of hypertransparency," mini-conference on Post-Normal STS: Constraints, Blind Spots, and New Directions, University of Michigan Science, Technology & Society Program, May 2014

"A Weather Knowledge Infrastructure for Europe and the World," conference on Democracy & Technology, Tensions of Europe Network, Sorbonne, Paris, September 2013

"The History of Infrastructure and the Future of Cyberinfrastructure in the Earth System Sciences," invited oral presentation, union session, American Geophysical Union annual meeting, San Francisco, December 2012

"Why Governance is Hard — and How Cyberinfrastructure can Help (or not)," invited poster, American Geophysical Union annual meeting, San Francisco, December 2012

"Scaling Disaster: Simulating the Extent of the Deepwater Horizon and the Fukushima Meltdowns," Society for Social Studies of Science annual meeting, Copenhagen, October 2012

"Scaling Up: Space, Code, Trust, and the Organization of Climate Modeling Work," conference on Atmosphere and Algorithms, Centre Alexandre Koyré, Paris, October 2012

"Translating Science into Politics? Computer Models From Limits to Growth to Nuclear Winter," Society for the History of Technology annual meeting, Cleveland, Ohio, November 2011

"Computers, Global Data, and Cold War: Making Climate Knowledge, 1945-1960 and 1980-1990, conference on Cold War/Blue Planet: The Rise of the Environmental Sciences in a Divided World, Manchester, UK, June 2012

"Infrastructure(s) and the Fukushima Earthquake: A Roundtable on Emergencies, Nuclear and Otherwise," co-organizer and participant, Society for the History of Technology annual meeting, Cleveland, Ohio, November 2011

Cristen Torrey, Mark S. Ackerman, and Paul N. Edwards, "Misalignments between funding models and governance ideals in a scientific software collaboration" (poster), Science of Team Science conference, April 2011

Ann Zimmerman, Paul N. Edwards, and Geoffrey C. Bowker, "The Ecology of Science Teams" (poster), Science of Team Science conference, April 2011

Paul N. Edwards and Archer Batcheller, "Metadata Means Communication: The Challenges of Producing Useful Metadata," American Geophysical Union annual meeting, December 2010

Author Meets Critics: panel on *A Vast Machine*, organized by Sverker Sörlin with Jim Fleming and Nina Wormbs, Society for the History of Technology, Seattle, September 2010

"Frame Work: Coordination and Conflict in the Earth System Modeling Framework," panel of the Monitoring, Modeling and Memory Project, annual meeting of the Society for Social Studies of Science, October 2009

"Computers, Apartheid, and Information Infrastructure in South Africa, 1960-2000," Engaging Africa/Advancing African Studies, University of Michigan, March 2009

Archer Batcheller and Paul N. Edwards, "Social Science Studies of ESMF as Cyberinfrastructure: A New Project," American Geophysical Union annual meeting, San Francisco, December 2008

"Data Friction and Computational Friction in the History of Global Climatology," Society for Social Studies of Science annual meeting, Rotterdam, August 2008

"Ideology and Irony in Technopolitics: Computers and Apartheid Revisited," Society for the History of Technology annual meeting, Washington D.C., October 2007

Co-organizer and presenter, workshop on "Understanding Infrastructure: Dynamics, Tensions, Design, and Data," e-Social Science Conference, Ann Arbor, October 2007

"Trust in Data: Climate Change Knowledge and the Meteorological Information Infrastructure," Society for Social Studies of Science annual meeting, Montreal, October 2007

 "STS & Information Studies: Doing STS in Information Schools" roundtable, Society for Social Studies of Science annual meeting, Montreal, October 2007

"Past and future tense: How history can play a role in policymaking" (roundtable — co-organizer and presenter), Third Plenary Conference of the Tensions of Europe Network, Rotterdam, Netherlands, June 2007

Kerstin Lehnert, Paul N. Edwards, Geoffrey C. Bowker, and Steven J. Jackson, "The Cultural and Social Challenges of Developing Geoinformatics: Insights from Social, Domain, and Information Sciences," Geoinformatics 2007: Data to Knowledge, San Diego, CA, May 2007

Paul N. Edwards and Christopher A. Lee, "Infrastructuration: Technology Studies and/as Social Theory," Society for Social Studies of Science annual meeting, November 2006

Paul N. Edwards & Gabrielle Hecht, "Technopolitics in the Construction and Destruction of Apartheid South Africa," African Technopolitics Workshop, Ithala, South Africa, July 2006

Paul N. Edwards & Gabrielle Hecht, "Translucency and the Technopolitics of Resistance in Apartheid South Africa," annual meeting of the Society for Social Studies of Science, November 2005

Paul N. Edwards & Gabrielle Hecht, "Technopolitics and the Translucent State: Apartheid South Africa and the Cold War," annual meeting of the Society for History of Technology, Amsterdam, Netherlands, October 2004

"'Networking Europe': The View from South Africa," Tensions of Europe: Technology and the Making of 20th Century Europe, 1st Plenary Conference, Budapest, Hungary, March 2004

"An Information Technology Paradox: General Concern vs. Positive Reception," panel on "The Dark Side of Information Technology," Fourth International Conference on Conceptions of Library and Information Science: Emerging Frameworks and Methods, Seattle, Washington, July 2002

"History of a Number: Climate Simulations, Data Networks, and Global Average Temperature," annual meeting of the Society for Social Studies of Science, Cambridge MA, November 2001

"Thinking Globally: Computers, Networks, and the Construction of 'Global' Space(s)," panel on Computers, Ideologies, and Technological Change, annual meeting of the Society for the History of Technology, San Jose, CA, October 2001

"The World in a Machine: Computer Models, Data Networks, and Global Atmospheric Politics," History E-book Colloquium, American Council of Learned Societies, May 2001

"Computer Models and the Politics of Uncertainty in Global Climate Science," annual meeting of the American Anthropological Association, San Francisco, CA, November 2000

"World Wide Webs? Networks, Digital Convergence, and Globalization," annual meeting of the Society for Social Studies of Science, Vienna, Austria, September 2000

"Computer-based Infrastructures and Globalization," annual meeting of the Organization of American Historians, St. Louis, MO, March 2000

"Data Wars: Reconciling (or not) Disparate Data Sources in Global Climate Science," panel on "The Sociology and Politics of Database" (co-organized by Geoff Bowker and Paul Edwards), annual meeting of the Society for Social Studies of Science, October 1999

Panel: "Systems, Networks, and Webs: New Directions in the Historiography of Information Technology?" Society for History of Technology, October 1998. Panelists: Paul N. Edwards, Thomas Parke Hughes, Jon Agar, Geoffrey Bowker

"Nerd Worlds: Computer Hackers, Unofficial Culture, and Masculine Identities," annual meeting of the History of Science Society, November 1997

"Scientific Internationalism and the Global Atmosphere, 1945-1957," presentation at "Changing the Atmosphere: Science and the Politics of Global Warming," double panel at the annual meeting of the Society for Social Studies of Science, October 1997. Session co-organizer (with Clark Miller) and chair

Commentator, panel on "Materials, Practices, and Appropriate Politics: Putting Theory to Work in Designing Technology," annual meeting of the Society for Social Studies of Science, October 1997

"Building Worlds: The History and Politics of Climate Science," conference on History of Science & Technology, University of California Berkeley, January 1997

"Fire and Ice: Modeling the Future of Climate and Life," annual meeting of the Society for the History of Technology, London, August 1996. Also presented at the "Moore School Lectures 50th Anniversary Commemorative Technical and Historical Symposium," University of Pennsylvania, May 1996. An earlier version was delivered at the Conference on Biology, Computers, and Society, Stanford University, June 1994

"SiliconBase: A Networked Scholarly Workspace for the Humanities," national meeting of the National Science Foundation Digital Libraries Initiative, University of California at Santa Barbara, November 1995

"Global Climate Change: The History and Politics of Global Warming," panel discussion (including Stephen Schneider, John Harte, and Pamela Mack), Program in History and Philosophy of Science, Stanford University, February 1995

"The Closed World: Computers, Military Power, and Political Identity in Postwar America," American Historical Association Annual Meeting, Chicago, January 1995

"Representing Global Climate Change: Atmospheric Science and Environmental Politics," co-organizer and discussant. Panel presentation at Society for Social Studies of Science Annual Meeting, New Orleans, October 1994

"Why Build Computers? The Cold War, Project Whirlwind, and Air Defense 1945-58," Society for the History of Technology Annual Meeting, Lowell, MA, October 1994

"Political Theory and Science and Technology Studies," Society for Social Studies of Science annual meeting, November 1993

"Hypertext: Hype or Text?", Society for Social Studies of Science Annual Meeting, Cambridge MA, November 1991

"User Friendly: Images of Computers in Advertising," Society for Social Studies of Science Annual Meeting, Cambridge MA, November 1991

"Military Science and Basic Research: The Politics of Conceptual Boundaries in Artificial Intelligence," Society for Social Studies of Science, Irvine CA, November 1989

"The Cultural Politics of High Technology," Gordon Research Conference on Cybernetics, Oxnard CA, January 1988

"Pacific Security: Regional Impacts of Trends in Global High Technology" (with Richard Gordon), Institute on Global Conflict and Cooperation, Conference on Pacific Rim Security, Berkeley, March 1987

"Border Wars: The Science, Technology, and Politics of Artificial Intelligence," Society for Values in Higher Education Annual Meeting, Bowdoin College, August 1984

"Origins of Cybernetic Psychology," Society for Values in Higher Education Annual Meeting, Carleton College, August 1983

DISSERTATION SUPERVISION — asterisks indicate advisees; home units listed for non-SI students

Hanna Cecilie Geirbo (Department of Informatics, University of Oslo, Norway), *Crafting connections – Practices of Infrastructuring: an ethnographic study of developing a village electricity grid in Bangladesh*

*Salem Elzway (History, projected for 2020)

*Padma Chirumamilla, *Making media ordinary: Telugu television and the work of repair in Andhra Pradesh* (projected for 2018)

*Melissa Chalmers, *Between Analog and Digital: The Work of Digitization and the Digitization of Work* (projected for 2018)

Kevin Donovan (Anthropology & History, projected for 2018), *The Politics of Infrastructural Regionalism in East Africa*

Johnathan Puff (Taubman School of Architecture, projected for 2018), "*The City Unburnable*"*: The Architecture of American Fire Safety, 1869-1920*

Anoff Cobblah (English Language & Literature, projected for 2018), *The Work of Scientific Play in Nineteenth-Century Britain*

Samuel Goëta (Département Sciences Économiques et Sociales, Télécom ParisTech, 2016), *Instaurer des données, instaurer des publics: une enquête sociologique dans les coulisses de l'open data*

Joshua Kupetz (English Language & Literature, 2016), *Disability Ecology: Literary Disability in 20th Century U.S. Fiction*

Emily Merchant (History, 2015), *Prediction and Control: Global Population Projection in the Twentieth Century*. Current position: Assistant Professor, Dept. of Science & Technology Studies, University of California, Davis.

Davide Orsini (Anthropology & History, 2015), *Life in the Nuclear Archipelago: Cold War Technopolitics and U.S. Nuclear Submarines in La Maddalena, Italy*. Current position: Assistant Professor, Dept. of History, University of Mississippi.

Régis Briday (Centre Alexandre Koyré, Paris, France, 2014), *Une histoire de la chimie atmosphérique globale: Enjeux disciplinaires et d'expertise de la couche d'ozone et du changement climatique.*

Gemma Cirac Claveras (Centre Alexandre Koyré, Paris, France, 2014), *POLDER and the Age of Space Earth Sciences: A Study of Technological Satellite Data Practices*

Selena Nemorin (Ontario Institute for Studies in Education, University of Toronto, 2014), *Augmenting Animality: Neuromarketing as a Pedagogy of Communicative Surveillance*

Trond Jacobsen (2014), *Evidence of Conquest: Records, Evidence, and the Federal Acknowledgement Process*. Current position: Director, Forensics Program and University Forum, University of Oregon.

Matthew Heins (Taubman School of Architecture, 2013), *The Shipping Container and the Globalization of American Infrastructure*. Current position: lecturer, Northeastern University.

Antti Silvast (Department of Social Science, University of Helsinki, 2013), *Anticipating Interruptions: Security and Risk on a Liberalized Electricity Infrastructure*. Current position: postdoctoral fellow, Institute for International and Regional Studies, Princeton University.

Jonathan Lukens (School of Literature, Communication, and Culture, Georgia Institute of Technology, 2013), *DIY Infrastructure*. Current position: Visiting Professor, University of Tennessee Knoxville.

Anthea Josias (2013), *'Methodologies of Engagement': Locating Archives in Post-Apartheid Memory Practices*.

Azarias Reda (Computer Science and Engineering, 2012), *Systems for Challenged Network Environments*. Current position: CEO, Meritful.

*Archer Batcheller (2011), *Requirements Engineering in Building Climate Science Software*. Current position: Future Technical Leaders program, Northrop Grumman Corporation.

David Julyk (American Culture, 2008), *'The Trouble With Machines Is People': The Computer as Icon in Post-War America: 1946-1970*. Current position: Director of Quality and Compliance, Synarc.

Sandra Seekins (Art History, incomplete), *Stelarc: Performing Posthuman Evolution*. Current position: Instructor, Art History and Women's & Gender Studies, Capilano University.

*Kelly Garrett (2005, co-advisor), *Exposure to Controversy in an Information Society*. Current position: Assistant Professor, School of Communication, Ohio State University.

Jeremy Birnholtz (2005), *Factors Affecting the Utility and Desirability of Collaboration in Three Science and Engineering Disciplines*. Current position: Assistant Professor, Dept. of Communication and Faculty of Computing and Information Science, Cornell University; Director, Collaboration Technology Lab.

Nathaniel Poor (Communication Studies, 2004), *Democratic Technologies: Openness, Decentralization, and the Success of Information Systems*. Current position: Research Associate, Social Science Research Council.

Ann Zimmerman (2003), *Data Sharing and Secondary Use of Scientific Data: Experiences of Ecologists*

TEACHING

Anthropocene Campus, Haus der Kulturen der Welt, Berlin

Techno-Metabolism — seminar for second Campus, April 2016 (co-instructors: Gabrielle Hecht and Jonas Loh)

Modeling Wicked Problems — seminar with Miriam Diamond (U Toronto), Pablo Jensen (ENS Lyon), and Chris Strashok (Techsight Consulting), November 2014

Sciences Po, Paris (2012-13)

After Fukushima: Climate Science, Nuclear Power, and Global Warming
Information in Social Systems
Climate Controversies: Past, Present, and Future

University of Michigan

PhD and Masters courses

Climate Change Informatics (team-taught with climate scientist Richard Rood)
Knowledge and Information Infrastructures
Doctoral Foundations Seminar, School of Information
Information in Social Systems: Collections, Flows and Processes
Knowledge/Power/Practice in Science, Technology and Medicine
Theories and Models in Information Studies
Social Systems and Collections
InfoCulture: Theory and Methods in History and Sociology of Information Technology
Research Methods

Undergraduate courses

Computers and the Internet: A Global History
History of the Present: Climate change, nuclear power, and energy futures — a post-Fukushima history
    (team-taught)
Global Change 3: Sustainability Studies (team-taught)
History of Computers and the Internet (undergrad/grad)
Information Technology and Global Politics
History of Time

Stanford, Cornell, and UC Santa Cruz (undergraduate courses, unless specified)

Senior Seminar in Science, Technology, and Society
Politics of Technical Decisions (undergrad/grad)
Minds, Machines, and Subjectivity
Phenomenological Foundations of Cognition, Language, and Computing
Computers, Ethics, and Social Responsibility
Computers and Society
Language and Mind
Star Wars: Defense Policy and High Technology
Introduction to Ethical Theory
Introduction to Philosophy

CONFERENCE ORGANIZING

Lead organizer, *Knowledge Infrastructures Workshop,* co-sponsored by the Sloan Foundation and the
    National Science Foundation, University of Michigan, May 25-28, 2012 (30 international
    participants)

Lead PI and co-organizer, conference series on *History & Theory of Infrastructure: Distilling Lessons for
    New Scientific Cyberinfrastructures*. Three meetings: June 26, 2006 workshop at National Science
    Foundation; Sept. 28-Oct. 1, 2006 conference at University of Michigan (35 participants); Dec. 14,
    2006 report-out session at National Science Foundation.

Co-organizer, *First International Workshop on Transnational infrastructures and the Rise of Contemporary
    Europe,* Rolduc Abbey, Netherlands, April 20-23, 2006

Co-organizer, *Strategic Computing: History, Politics, Epistemology,* UC Santa Cruz, California, October 1985

PROFESSIONAL ACTIVITIES AND SERVICE

Editorships and Editorial Boards

Geoffrey C. Bowker and Paul N. Edwards, co-editors, <u>Infrastructures book series, MIT Press,</u> 2010-present. Books published or contracted to date:

- Morgan Ames, *The Charisma Machine: The Life, Death, and Legacy of One Laptop per Child* (contracted)
- Brenda Chalfin, *The Right to Shit: Infrastructure and the Vital Politics of Waste in West Africa* (contracted)
- Lawrence Busch, *Knowledge for Sale: The Neoliberal Takeover of Higher Education* (2017)
- Bill Maurer and Lana Swartz (eds.), *Paid: Explorations with Transactional Things* (2017)
- Clifford Siskin, *System: The Shaping of Modern Knowledge* (2016)
- Geoffrey C. Bowker, Stefan Timmermans, Adele E. Clarke and Ellen Balka, eds., *Boundary Objects and Beyond: Working with Leigh Star* (2016). 2016 Best Information Science Book Award, Association for Information Science & Technology.
- Sebastian Ureta, *Assembling Policy: Transantiago, Human Devices, and the Dream of a World-Class Society* (2015)
- Alexander Klose, *The Container Principle* (2015)
- Eric Meyer and Ralph Schroeder, *Knowledge Machines: Digital Transformations of the Sciences and Humanities* (2015)
- Ashley Carse, *Beyond the Big Ditch: Politics, Ecology, and Infrastructure at the Panama Canal* (2014)
- Olga Kuchinskaya, *The Politics of Invisibility: Public Knowledge about Radiation Health Effects after Chernobyl* (2014)
- James Leach and Lee Wilson, eds., *Subversion, Conversion, Development: Cross-Cultural Knowledge Exchange and the Politics of Design* (2014)
- Finn Brunton, *Spam: A Shadow History of the Internet* (2013)
- Eda Kranakis and Nil Disco, eds., *Cosmopolitan Commons: Sharing Resources and Risks across Borders* (2013)
- Lisa Gitelman, ed., *Raw Data is an Oxymoron* (2013)
- Casper Bruun Jensen, *Monitoring Movements: Building Partnerships Through Aid Information Infrastructures* (2013)
- Lawrence Busch, *Standards: Recipes for Reality* (2011)
- Paul N. Edwards, *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming* (2010)

Editorial Board member:

- *Internet Histories: Digital Technology, Culture and Society* (2016-present)
- *Big Data & Society* (2013-present)
- *Information & Culture: A Journal of History* (2011-present)

Associate Deputy Editor for history and social sciences, *Climatic Change,* 2011-2015

Steve M. Easterbrook, Paul N. Edwards, Venkatramani Balaji, and Reinhard Budich, co-editors, special issue on "Climate Change: Science and Software," *IEEE Software* 28:6 (2011)

Paul N. Edwards, Geoffrey C. Bowker, Steven J. Jackson, and Robin Williams, guest editors, special issue on "e-Infrastructures," *Journal of the Association for Information Systems* 10:5 (2009)

Associate Editor, special issue on "Standard Making: A Critical Research Frontier for Information Systems," eds. John L. King and Kalle Lyytinnen, *Management Information Systems Quarterly* 30:3 (2006)

External service

- Bernal Prize Committee, Society for Social Studies of Science, 2001-02, 2012-13 (chair), 2015-16
- EarthCube Test Governance Advisory Committee, National Science Foundation, 2013-2015
- Computer History Museum Fellowship Award Committee, 2014-2015
- Advisory board, Climate Code Foundation, 2010-present
- Visiting Committee, Data Conservancy (large-scale scientific data curation), 2011
- Advisory board, Next Generation Infrastructures Project (Netherlands), "Exploring the International Dimensions of Infrastructures: A Historical Perspective," 2009-11
- Exhibit review, Computer History Museum, 2007-08
- Nominating Committee, Society for the History of Technology, 2000-2003
- US government review of IPCC Third Assessment Report and other climate change assessment documents, 2000-present
- History of the Atmospheric Sciences Committee, American Meteorological Society, 2000-2003
- Planning consultant, MIT Museum, exhibit on history of artificial intelligence, 2000
- Robinson Prize Committee, Society for the History of Technology, 1997-2000
- Software Task Force, Charles Babbage Institute, 1998
- Advisory Board, San Francisco Computer Museum Project. 1996-1998
- Travel Grants Committee, Society for Social Studies of Science, 1996
- Bay Area Technology and Culture Group Co-organizer, works-in-progress discussion group for faculty and graduate students, 1994-1998
- Grant Coordinator, Presidio Center on Global Change Project, 1995
- CChange Mailing List Coordinator, electronic mailing list for humanists and social scientists studying climate science and climate change, 1994-1999
- Review Panel, Computer Museum exhibit on *The Networked Planet: Traveling the Information Highway,* sponsored by the National Endowment for the Humanities, 1993-94
- Silicon Valley Research Group, UC Santa Cruz, 1984-90
- Institute on Global Conflict and Cooperation (IGCC), UC San Diego, 1987-1989, including:
    - European Summer School on Global Security and Disarmament, 1988
    - US Summer School on Global Security and Disarmament, 1987
    - California Seminar on Pacific Rim Security
    - UC Nuclear Discourse Group

Internal service

University of Michigan

- Director of Graduate Studies, UM Science, Technology & Society Program, 2016-present
- Senior Fellow, Michigan Society of Fellows, 2016-2020
- Rackham Predoctoral Fellowships review committee, 2015-2017
- Executive Committee, Doctoral Program in Anthropology and History, 2014-2016

- Co-leader, University of Michigan observer delegation, 21st Conference of Parties to the Framework Convention on Climate Change, Paris, December 2015
- Dean's Advisory Committee, School of Information, 2014-15
- MSI Committee, School of Information, 2014-15
- Steering Committee, Michigan Meeting on Academic Engagement, 2014-15
- President's Advisory Committee on University History, 2013-present
- Diversity Committee, School of Information, 2013-14
- Director, UM Science, Technology & Society Program, 2000-2003, 2005-06, 2010-12
- Search Committee, School of Information, 2009-12 (chair 2010-12)
- Dean's Advisory Committee, School of Information, 2001-02, 2004-2006, 2010-11, 2014-15
- Member, UM observer delegation,15th Conference of Parties to the Framework Convention on Climate Change, Copenhagen, December 2009
- Curriculum Committee, School of Information (chair 2008-2010)
- Science, Technology, Medicine & Society Speaker Series committee chair, 2008-2010, 2013-14
- Steering Committee, Science, Technology & Medicine-Africa initiative, African Studies Center, 2009-present
- Steering Committee, UM Science, Technology, and Public Policy Program, 2004-present
- North Quad living-learning building project, 2004-present, including:
  - North Quad Academic Programs Group
  - Building Committee
  - Shared Spaces Working Group
  - SI North Quad Planning Group
  - Residential Life and Learning committee
  - Global Scholars Program pilot project
  - Provost's North Quad Programming Working Group
- Multidisciplinary Learning and Team Teaching Committee (dispenses large internal grants in support of interdisciplinary and inter-school teaching efforts), 2006
- UM History & Traditions Committee, 2005-2008
- Doctoral Committee, School of Information, 2004-05
- Chair, Program on Science, Technology & Society, Residential College, 1999-2003
- Promotion & Tenure Committee, School of Information, 2002-present
- Curriculum Committee, School of Information, 2001-03
- Doctoral no-credit seminar (organizer), School of Information, 2001 and 2004
- Faculty Appointment and Institutional Renewal Committee (long-range planning), Residential College, 2001-02
- Pohs Chair Search Committee, Communication Studies Dept./School of Information, 2000-2001
- Chair, UM Planning Group for a Program in Science, Technology & Society, 1999-2000
- Masters Committee, School of Information, 1999-2001
- Evans Chair Search Committee, Communication Studies Dept./School of Information, 1999-2000
- Faculty Steering Committee on Environmental Issues and Research, 1999-2001
- Chair, Science, Technology & Society Program, Residential College, 1999-2003
- Lecture Series organizer, "Information in the 20th Century: History, Technology, Society," School of Information, 1997
- Film Series organizer, "The History of Computers in Fact and Fiction," Residential College, 1997

Stanford University

- Organizing Committee, Workshop Series on Protecting and Assuring Critical National Infrastructure, Center for International Security and Arms Control, 1996-1997.
- STS Planning Group Organizer, Program in Science, Technology, & Society, 1995-96
- Organizer, Technology and Society Faculty Research Seminar, Program on Science, Technology, and Society, 1994-1997

Cornell University

- Seminar Series co-organizer, Dept. of Science & Technology Studies, 1991-92
- Undergraduate Advisor, Program on Science, Technology, and Society, 1990-91

PEER REVIEW

Books

CRC Press
Edward Elgar Publishing Ltd.
Harvard University Press
MIT Press
Oxford University Press
Princeton University Press
Palgrave Press
Stanford University Press
University of Chicago Press
University of Michigan Press
University of North Carolina Press
Yale University Press

Grant and Fellowship Proposals

American Meteorological Society
National Science Foundation
National Endowment for the Humanities
European Science Foundation
European Research Council
Agence Nationale de la Recherche (France)
Institut Francilien Recherche Innovation Société (France)
Netherlands Organisation for Scientific Research

Journal Articles

Administrative Science Quarterly
American Behavioral Scientist
Big Data & Society
Biosocieties
Climatic Change
Communications of the ACM
Cultural Anthropology
Current Opinion in Environmental Sustainability
Electronic Markets
Environmental Research Letters
Foundations of Science
Historical Studies in the Natural Sciences
History of Psychology
IEEE Annals of the History of Computing
IEEE Software

IEEE Technology & Society Magazine
The Information Society
Isis
Journal of Peer Production
Management Information Science Quarterly
Minds & Machines
Minerva
Organization
PoLAR: Political and Legal Anthropology Review
Science, Technology & Human Values
Science as Culture
Social Studies of Science
Sociological Forum
Studies in History and Philosophy of Modern Physics
Space Science Quarterly
Technology & Culture
Telecommunications Policy

PROFESSIONAL ORGANIZATIONS

American Meteorological Society
American Geophysical Union
Society for Social Studies of Science
Society for the History of Technology

LANGUAGES

Fluent in French
Reading knowledge of German, Spanish, Dutch, and Afrikaans