Curriculum Vitae - Matthew Nicholas Eisler

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Qualifications and employment

2022-	Lecturer, History in the Faculty of Humanities and Social Sciences, University of Strathclyde
2017-2022	Strathclyde Chancellor's Fellow, History in the Faculty of Humanities and Social Sciences, University of Strathclyde
2016-2017	Teaching Assistant Professor and Director of Science, Technology, and Society Program, North Carolina State University
2015-2016	Visiting Assistant Professor, Integrated Science and Technology Department, James Madison University
2012-2015	Lecturer, Department of Engineering and Society, School of Engineering and Applied Science, University of Virginia
2011-2012	Research Fellow, Science History Institute (formerly Chemical Heritage Foundation)
2009-2011	Postdoctoral Fellow, Center for Nanotechnology in Society, University of California at Santa Barbara
2008-2009	Postdoctoral Fellow, Department of History, Western University (formerly University of Western Ontario)
2008	PhD History (modern US/science and technology), University of Alberta
2005	Pre-dissertation Fellow, National Air and Space Museum, Smithsonian Institution
2005	Pre-dissertation Fellow, Institute of Historical Research/Mellon Foundation/University of London
2004	Pre-dissertation Fellow, IEEE History Center
2004	Pre-dissertation Fellow, Chemical Heritage Foundation
2002	MA History (modern US/science and technology), University of Alberta
2000	BA History, University of Alberta (with distinction)

Publications

Books

2022 *Age of Auto Electric: Environment, Energy, and the Quest for the Sustainable Car*, MIT Press (378 pages) ISBN 9780262544573

2012 *Overpotential: Fuel Cells, Futurism, and the Making of a Power Panacea*, Rutgers University Press (304 pages) ISNB 0813551773

Peer-reviewed articles

2023 "From Petroleum to Power Sources: Big Oil and the Sociotechnics of Energy Conversion," forthcoming, special issue of *History and Technology*

2020 "Public Policy, Industrial Innovation, and the Zero-Emission Vehicle," *Business History Review* 94, no. 4 (2020): 779-802 (23 pages)
doi: 10.1017/S0007680520000719

2017 "Materials Science, Instrument Knowledge, and the Power Source Renaissance," *Proceedings of the IEEE* 105, no. 12 (2017): 2382-2389 (7 pages)
doi: 10.1109/JPROC.2017.2770439

2017 "Exploding the Black Box: Personal Computing, the Notebook Battery Crisis, and Postindustrial Systems Thinking," *Technology and Culture* 58, no. 2: 368-391 (23 pages) doi: 10.1353/tech.2017.0040

2016 "Cold War Computers, California Supercars, and the Pursuit of Lithium Ion Power," *Physics Today* 68 (2016): 9, 30 (2 pages) https://doi.org/10.1063/PT.3.3296

2016 "Materials Research, Super Batteries, and the Technopolitics of Electric Automobility," *Historical Studies in the Natural Sciences* 46, no. 1 (2016): 44-66 (22 pages)
https://doi.org/10.1525/hsns.2016.46.1.44

2013 "'The Ennobling Unity of Science and Technology:' Materials Sciences and Engineering, the Department of Energy, and the Nanotechnology Enigma," *Minerva* 51, no. 2 (2013): 225-251 (26 pages) https://www.jstor.org/stable/43548572

2011 With Motoyama, Yasuyuki. "Bibliometry and Nanotechnology: A Meta-Analysis," *Technological Forecasting and Social Change* 78, no. 7 (2011): 1174-1182 (8 pages)
https://doi.org/10.1016/j.techfore.2011.03.013

2009 "'A Modern Philosopher's Stone:' Techno-Analogy and the Bacon Cell," *Technology and Culture* 50, no. 2 (2009): 345-365 (20 pages) doi:10.1353/tech.0.0262.

2009 "Getting Power to the People: Technological Dramaturgy and the Quest for the Electrochemical Engine," *History and Technology* 25, no. 1 (2009): 49-68 (18 pages)
https://doi.org/10.1080/07341510802618174

Public impact articles

2023	"Computers on Wheels?" *Issues in Science and Technology* XXXIX, no. 2 (Winter 2023)
2022	"Notes from the Road: Writing Age of Auto Electric," *Society for the History of Technology Newsletter,* Sept 2022
2021	"Now Climate Change is Threatening Renewable Energy, Too," *Slate* 12.11.21
2021	"When Computers on Wheels Become Flaming Metal-Oxide Robocars," *Slate* 21.04.21
2019	"Bolivian Lithium: Why You Should Not Expect Any 'White Gold Rush' in the Wake of Morales Overthrow," *The Conversation* 15.11.19
2019	"Ion the Prize: The 2019 Nobel Prize in Chemistry: The Story of the Lithium-Ion Battery Tells Much About the Increasingly Global Nature of Innovation," *IEEE Spectrum* 11.10.19
2018	"The Carbon-Eating Fuel Cell [Blueprints for a Miracle]," *IEEE Spectrum* 55, no. 6 (2018): 22-25, 76 doi: 10.1109/MSPEC.2018.8362221.
2018	"A Prefabricated Tragedy: The Collapse of a Superbridge in Florida Shows How an Entire Philosophy of Building Can Go Wrong," *Slate* 18.03.18
2017	"Will Volvo Really Kill the Gasoline Engine?" *IEEE Spectrum* 21.07.17
2016	"The History of Lithium Ion Batteries is Explosive," *Slate* 09.13.16
2016	"The Bolt Probably Won't Make GM A Dime," *IEEE Spectrum* 02.16
2016	"A Tesla in Every Garage? Not So Fast," *IEEE Spectrum* 02.16
2015	"Can Tesla's Enthusiast Customers Help It Sell the Electric Car for the Everyperson?" *The Conversation* 11.17.15
2012	"Science, Silver Buckshot, and 'All of the Above:' Negotiating Energy R&D Policy at ARPA-E Energy Summit 2012," *Science Progress* 04.02.12
2011	"Energy Innovation at Nanoscale: Case Study of an Emergent Industry," *Science Progress* 05.23.11
2009	"Sustainability Made Easy? R&D and Energy Technopolitics," *Chemical Heritage* 27, no. 2: 1-3
2008	With Katherine Zwicker, "Putting Region in its Place: An Interdisciplinary Conference on Health, Healing and Place," *The Gazette: Society for the Social History of Medicine* 44: 6-9
2005	"Fuel Cell Research and Historical Consciousness," *Chemical Heritage* 23, no. 1
2005	"Francis Thomas Bacon and the Fuel Cell," *IEEE-USA Today's Engineer Online*

Book chapters

2023 "Vehicle-to-Grid, Deregulated Regulation, and the Energy Conversion Imaginary," in *Electrical Conquest,* eds. W. Bernard Carlson and Erik M. Conway (forthcoming, Springer)

2020 "Chapter 3.8: Power Sources," in *Between Making and Knowing: Tools in the History of Materials* Research, eds. Joseph Martin and Cyrus Mody, 349-355 (World Scientific) https://doi.org/10.1142/11482

2014 "At Arm's Length: Energy and the Construction of a Peripheral Prairie Petrometropolis," in *Energy Capitals*, eds. Martin V. Melosi and Joe Pratt, 111-126 (University of Pittsburgh Press)

2012 "Chapter 1: Perspective: Where Nano Came From," in *Nanotechnology and the Public: Risk Perception and Risk Communication*, ed. Susanna Hornig Priest, 9-19 (CRC Press/Taylor & Francis Group)

2012 "Chapter 2: Science That Pays for Itself: Nanotechnology and the Discourse of Science Policy Reform," in *The Social Life of Nanotechnology*, eds. Barbara Herr Harthorn and John W. Mohr, 19-36 (Routledge)

Encyclopedia entries

2010 "Department of Energy (US)," "Nanotechnology in Manufacturing," "Occupational Safety and Health Enforcement," "Self-Assembly," "Science Policy," "Spintronics," *Encyclopedia of Nanoscience and Society* (SAGE)

2006 "Nuclear Weapons," "Anti-Ballistic Missiles," "New Look Defense Policy," *Postwar America: An Encyclopedia of Social, Political, Cultural, and Economic History* (ME Sharpe)

2004 "Nuclear Reactors: Fusion, Later Designs (Tokamak)," *Encyclopedia of Twentieth Century Technology* (Routledge)

Book reviews

2017 Sandwell, RW, ed, *Powering Up Canada: A History of Power, Fuel, and Energy from 1600*. In *Business History Review* 91, no. 4: 861-863

2013 Montgomery, Scott L *The Powers That Be: Global Energy for the Twenty-First Century and Beyond.* In *Chemical Heritage* 30, no. 3: 42-43

2010 Moody, Roger, *Rocks and Hard Places: The Globalization of Mining*. In *Labour/Le Travail* 66: 292-295

2010 Johnson, Carol Siri, *The Language of Work: Technical Communication at Lukens Steel, 1810 to 1925*. In *Technology & Culture* 51, no. 1: 252-254

2009 Hamilton, Shane, *Trucking Country: The Road to America's Wal-Mart Economy.* In *Business History Review* 83, no. 3

2007	Bradford, Travis, *Solar Revolution: The Economic Transformation of the Global Energy Industry*, Podobnik, Bruce. *Global Energy Shifts: Fostering Sustainability in a Turbulent Age*. In *Chemical Heritage* 25, no. 3
2005	Josephson, Paul R, *Industrialized Nature: Brute Force Technology and the Transformation of the Natural World*. In *H-Net: Humanities and Social Sciences Online*
2004	Romm, Joseph J, *The Hype About Hydrogen: Fact and Fiction in the Race to Save the Climate*. In *Chemical Heritage* 23, no. 2
2004	Offner, Arnold A, *Another Such Victory: President Truman and the Cold War, 1945-1953*. In *Canadian Journal of History* 34, no. 1: 193-195

Teaching

Spring 2023	V1803: Organic Machines, Engineered Environments, and Hybrid Natures University of Strathclyde
Fall 2022	V1344: Science, Technology, and American Society V1102: History of Britain from 1700 to 1900 University of Strathclyde
Spring 2022	V1103: History of Britain since 1900 University of Strathclyde
Fall 2021	V1344: Science, Technology, and American Society V1102: History of Britain from 1700 to 1900 University of Strathclyde
Spring 2021	V1213: Disease and Society University of Strathclyde
Spring 2020	V1489: Science, Technology, and Industrial Innovation II (1980-2019) University of Strathclyde
Fall 2019	V1488: Science, Technology, and Industrial Innovation I (1945-1980) University of Strathclyde
Spring 2019	V1489: Science, Technology, and Industrial Innovation II (1980-2019) University of Strathclyde
Fall 2018	V1488: Science, Technology, and Industrial Innovation I (1945-1980) University of Strathclyde
Spring 2018	V1489: Science, Technology, and Industrial Innovation II (1980-2019) University of Strathclyde
Fall 2018	V1488: Science, Technology, and Industrial Innovation I (1945-1980) University of Strathclyde

Spring 2018	V1489: Science, Technology, and Industrial Innovation II (1980-2017) University of Strathclyde
Fall 2017	V1488: Science, Technology, and Industrial Innovation I (1945-1980) University of Strathclyde
Spring 2017	STS 214-001: Introduction to Science, Technology, and Society North Carolina State University
	STS 403-002: Seminar in Science, Technology, and Society North Carolina State University
Spring 2016	ISAT 131-01/02/03: Technology, Science, and Society (3 sections) James Madison University
January 2016	STS 2500-05/EVSC 2559-01: Organic Machines, Engineered Environments, and Hybrid Natures, University of Virginia
Fall 2015	ISAT 160-02: Problem Solving Applications in Science and Technology James Madison University
	ISAT 231-01/02: Political Economy of Technology and Science (2 sections) James Madison University
Spring 2015	STS 4600-023 (024/025/026): Engineering Ethics and Professional Responsibility (3 sections) University of Virginia
Fall 2014	STS 4500-025/101/102: STS and Engineering Practice (3 sections) University of Virginia
Spring 2014	STS 4600-020 (021/022): Engineering Ethics and Professional Responsibility (2 sections) University of Virginia
	USEM 1570-004: Intersections of Art and Science University of Virginia
Fall 2013	STS 4500-101/102: STS and Engineering Practice (2 sections) University of Virginia
	USEM 1570-005: Intersections of Art and Science University of Virginia
Spring 2013	STS 4600-014/015/016: Engineering Ethics and Professional Responsibility (3 sections) University of Virginia
Fall 2012	STS 4500-005/009: STS and Engineering Practice (2 sections) University of Virginia

Fall/Spring, 2008-09	History 4704E-001: Technology and Society in North America University of Western Ontario
Spring 2008	History 112: Modern World History Grant MacEwan University
Fall 2007	History 486 SEM A1: Understanding the Military Industrial Complex University of Alberta
Summer 2007	History 115 LEC B1: Technology and History University of Alberta
Spring 2007	History 115 LEC B1: Technology and History University of Alberta

Selected conference and workshop presentations

March 2023	"Green Discourse, the Energy/Materials Ecosystem, and Technologies of Environmental Care," accepted for presentation at the Human Technology Center, Aachen
November 2022	"Automobility as Energy Infrastructure," presented at Society for the History of Technology, New Orleans
May 2022	"Oil Spillovers," presented at Rice University Center for Environmental Studies, Houston, Texas
November 2021	"Green Business Sense and the Sociotechnics of Environmental Care," presented at Society for the Social Studies of Science, Toronto
October 2020	"V2G, User Agency, and Grid Management in the Renewable Energy Era," presented at Society for the History of Technology (attended virtually)
September 2020	"Fragile Sustainability: V2G and Grid Management in the Renewable Energy Era," invited presentation at "Rethinking Electrical History: From Esoteric Knowledge to Invisible Infrastructure to Fragile Networks," inaugural residential workshop of the Research Institute for the History of Science and Technology at Caltech and The Huntington Library (attended virtually)
October 2019	"Managing Research and Development in the Era of Industrial Convergence," presented at Society for the History of Technology, Milan
October 2018	"Bounding Battery Risk: Managing Convergence in the Electric Auto Age," accepted for presentation at Society for the History of Technology, St. Louis
April 2018	"Bounding Battery Risk: Managing Convergence in the Electric Auto Age," presented at the annual joint meeting of the Energy Technology Partnership/Scottish Hydrogen and Fuel Cell Association, University of Strathclyde, Glasgow
November 2016	"A Sense of Place: A Collaboration Between a Place-Based Marine Scientist, a Creative Writer, and an Environmental Historian," breakout session, presented at Alliance for the Arts in Research Universities, University of Colorado, Denver

November 2015	"Powering the Personal Computer in the Age of Distributed Innovation," presented at the Society for Social Studies of Science, Denver
October 2015	"Materiality, Super Batteries, and the Technopolitics of Electric Automobility," presented at the Society for the History of Technology, Albuquerque
March 2015	"Methods in Contemporary History," presented at the American Society for Environmental History, Washington, DC
July 2013	"The Lithium Economy, Distributed Industrialization, and the Managing of Power Source Heterodoxy," presented at the International Congress of the History of Science, Technology and Medicine, University of Manchester
November 2011	"Boundaries of Science Communication in the Era of Nanotechnology," presented at the Society for the Study of Nanoscience and Emerging Technologies, Tempe
November 2011	"Boundaries of Science Communication in the Era of Nanotechnology," presented at the Society for Social Studies of Science, Cleveland
September 2010	"Making Nanomaterials Work in Energy Conversion Technology," presented at the Society for the Study of Nanoscience and Emerging Technologies, Darmstadt
October 2009	"Hydrogen Futurism in Environmental and Energy Technopolitics," presented at the Society for the History of Technology, Pittsburgh
September 2008	"Battery vs. Fuel Cell: Electrochemical Power Sources and the Technopolitics of Green Automobility," presented at the Sixth International Conference on the History of Transport, Traffic and Mobility, Ottawa
June 2008	"Technological Metaphor and Fuel Cell Research and Development," presented at the Canadian Society for the History and Philosophy of Science, University of British Columbia
October 2007	"Fuel Cells," presented at the Society for the History of Technology, Washington, DC
October 2007	"Ballard Power Systems and the Rise and Fall of the Fuel Cell Automobile," presented at the Canadian Science and Technology Historical Association, University of Toronto
August 2007	"Fueling Dreams of Grandeur: Fuel Cell Research and Development and the Pursuit of the Abundant Energy Machine, 1945-2000," presented at the Institute of Electrical and Electronics Engineers Triennial Conference on the History of Electric Power, Newark, NJ
March 2006	"The Green Machine: Technological Utopia and the Discourse of the Hydrogen Fuel Cell," presented at the American Society for Environmental History/Forest History Society, St. Paul, MN
November 2005	"Bringing it Down to Earth: The U.S. Army, NASA, and the Politics of Fuel Cell Research and Development, 1959-1970," presented at the History of Science Society/Society for the History of Technology, Minneapolis, MN

Funding and grants

2019-2023	GBP £69,882: part of a collaborative cost-shared multi-PI grant (£315,658 for the faculties of Business, Humanities, and Science at the University of Strathclyde) for a Strathclyde Center for Doctoral Training supporting 6 doctoral students over 4 years
2011-2012	US $47,000 + $1500 in expenses: Research Fellow, Chemical Heritage Foundation
2009-2011	US $82,000 + $4000 in expenses: Postdoctoral Fellow, Center for Nanotechnology in Society, University of California at Santa Barbara
2008-2009	CAD $25,000: Postdoctoral Fellow, Department of History, University of Western Ontario

Leadership and administrative roles

2022-2024	Member, IEEE Spectrum Editorial Advisory Board
2021-	Senior Academic Integrity Officer, School of Humanities and Social Sciences, University of Strathclyde
2019-	Co-founder, Centre for Interdisciplinary Sustainable Research in Energy (C-INSPRE), History in the School of Humanities and Social Sciences, University of Strathclyde
2018-2019	Athena SWAN Member, History in Humanities and Social Sciences, University of Strathclyde
2018-	Convener, School Ethics Committee History in the School of Humanities and Social Sciences, University of Strathclyde
2016-2017	Chair, Bernard S. Finn IEEE History Prize Committee Society for the History of Technology
2015-2018	Bernard S. Finn IEEE History Prize Committee Member, Society for the History of Technology
2017	Da Vinci Prize Committee Member, Society for the History of Technology
2016-2017	Science, Technology, and Society Working Group/Curriculum Committee Member, Interdisciplinary Studies, North Carolina State University
2016-2017	IDS Undergraduate Grant Committee Member, Interdisciplinary Studies, North Carolina State University
2016-2017	Bernard S. Finn IEEE History Prize Committee Chair, Society for the History of Technology
2015-2016	Assessment Committee Member, ISAT Department, James Madison University
2015	"Technogoverning Sustainable Landscapes" Workshop

	Co-organizer, University of Virginia
2011	"Situating Emerging Technology" Panel Co-organizer, Society for Social Studies of Science
2011	Robinson Prize Committee Member, Society for the History of Technology
2011	Interdisciplinary Research Group 1 Seminar Series Organizer, Center for Nanotechnology in Society
2010	"Nanodays" Exhibit Guide, Center for Nanotechnology in Society
2009	"Chemical Trails," Panel Organizer and Chair, Society for the History of Technology
2007	"Putting Region in its Place," Workshop Co-organizer, University of Alberta
2004	First Annual CHF-SCI Innovation Day Rapporteur
2003-2004	*Past Imperfect: History and Classics Graduate Student Journal* 10 Associate Editor, University of Alberta
2002-2003	*Past Imperfect: History and Classics Graduate Student Journal* 9 Editor, University of Alberta

References

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University of California at Santa Barbara
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Department of History and Classics
University of Alberta
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