

Andrew Fiss

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Department of Humanities
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ACADEMIC POSITIONS

Assistant Professor of Technical & Professional Communication, Department of Humanities
Michigan Technological University (2014-present)

Visiting Assistant Professor of Writing and History
(**Writing in the Liberal Arts Postdoctoral Fellow**)
Davidson College (2013-2014)

Mellon Postdoctoral Fellow in Science, Technology, and Society (STS)

Participating Faculty in Women's Studies
Vassar College (2011-2013)

Research Assistant to Sander Gliboff, History & Philosophy of Science
Indiana University (2010-2011)

Associate Instructor, History & Philosophy of Science, College of Arts and Sciences
Indiana University (2006-2010)

EDUCATION

Ph.D. (2011), History & Philosophy of Science (HPS), Indiana University
(Advisor: Sander Gliboff, Committee: James H. Capshew, Jutta Schickore, Kevin M. Pilgrim, and Michael McGerr) **Minor:** History

Dissertation: "Professing Mathematics: Science and Education in Nineteenth-Century America"

M.A. (2007), History & Philosophy of Science, Indiana University

A.B. (2005), Mathematics, Vassar College
Phi Beta Kappa, General Honors, Honors in Mathematics

BOOK

Performing Math: A History of Communication and Anxiety in the American Mathematics Classroom (Rutgers University Press, forthcoming November 2020). Catalog:
<https://www.rutgersuniversitypress.org/performing-math/9781978820203>

PEER-REVIEWED ARTICLES

"Ridicule, Technical Communication, and Nineteenth-Century Women Performing College Math," *Technical Communication Quarterly* (accepted).

"Mathmagics of Media Princesses: Informal STEM Learning, STEM Rhetorics, and Animated Children's Movies," *Peitho* 22.1 (Fall/Winter 2019): 128-142.

Andrew Fiss and Laura Kasson Fiss, "Laughing Out of Math Class: The Vassar *Mathematikado* and Nineteenth-Century Women's Education," *Configurations* 27.3 (Summer 2019): 301-329.

"Structures of Antifeminism: Drugs and Women's Education in the Texts of Dr. Clarke," *Peitho* 21.1 (Fall/Winter 2018): 81-103.

- “Studying Objects, Objectifying Students: Natural History at Women’s Colleges in Postbellum New York State,” *New York History* 98.2 (Summer 2017): 205-229.
- “Mathematics and Mourning: Textbook Burial and Student Culture Before and After the Civil War, 1853-1880,” *History of Education Quarterly* 57.2 (May 2017): 221-246.
- “Cultivating Parabolas in the Parlor Garden: Reconciling Mathematics Education and Feminine Ideals in Nineteenth-Century America,” *Science & Edition* Special Issue in the History and Philosophy of Mathematics Education 23.1 (January 2014): 241-250.
- “Problems of Abstraction: Defining an American Standard for Mathematics Education at the Turn of the Twentieth Century,” *Science & Education* 21.8 (August 2012): 1185-1197.

BOOK CHAPTERS

- “For Computing Is Our Duty’: Algorithmic Workers, Servants, and Women at the Harvard Observatory,” in *Algorithmic Modernity*, edited by Massimo Mazzotti and Morgan G. Ames (under full contract with Oxford University Press), forthcoming.
- Joseph Chaney, Andrew Fiss, Paul Carey, and Francisco Iacobelli, “Chapter 17: How to Balance Graduate School and Family,” in *GPS for Graduate School: Students Share Their Stories*, edited by Mark J.T. Smith (Purdue: Purdue University Press, 2014), 105-124.

UNREFEREED WORKS (BOOK REVIEWS AND PEDAGOGICAL)

- “Review of Christopher Hollings et al, Ada Lovelace: The Making of a Computer Scientist,” *Isis* 111.1 (2020): 182-183.
- “Review of Hottinger, Sara N., Inventing the Mathematician: Gender, Race, and Our Cultural Understanding of Mathematics,” H-Net Reviews: Humanities and Social Sciences Online (April 2017), <http://www.h-net.org/reviews/showrev.php?id=48539>
- Andrew Fiss and Matthew Vest, “Broadcasting Science Writing: Media Translations in Liberal Arts Pedagogy,” NITLE’s Special Issue on Digital Collaboration and Blended/Hybrid Learning (August 2014), <https://escholarship.org/uc/item/5z70m6sh>

RECENT NEWS COVERAGE

- Allison Mills, “The Matematikado: A Parody of a Parody,” *Michigan Tech News*, September 5, 2019, <https://www.mtu.edu/news/stories/2019/september/the-matematikado-a-parody-of-a-parody.html>
- Also reposted by ACM Careers, Phys (through Science X), and Vassar’s In the Media
- Kelley Christensen, “Gender, Drugs and Education: A History of STEM Antifeminism,” *Michigan Tech News*, November 8, 2018, <https://www.mtu.edu/news/stories/2018/november/gender-drugs-and-education-a-history-of-stem-antifeminism.html>
- Shannon Rinkinen, “Science with a Side of Parody,” in “Research in Brief,” *Michigan Tech Research Magazine*, July 2018, <https://www.mtu.edu/magazine/research/2018/stories/brief/>
- Annabel Bligh, Gemma Ware, Miriam Frankel, and Stephen Harris, “17: Science by the Seaside,” September 13, 2017, in *The Anthill*, produced by The Conversation UK, podcast, MP3 audio, 35:40, <https://theconversation.com/anthill-17-science-by-the-seaside-84008>

Jess Brassard, "May the Fourth: Science of Star Wars," *Unscripted: Science and Engineering Research from Michigan Tech*, May 3, 2016,
<http://www.mtu.edu/unscripted/stories/2016/may/may-fourth-science-star-wars.html>

INVITED LECTURES

- "Professional Symbols: Parody and the Broader Reach of Local Mathematics." Lecture for the Workshop on Universals' Locales, *University of Edinburgh and the British Academy*, January 2020.
- Andrew Fiss and Laura Kasson Fiss, "Female 'Mathematikados': Parodying the Patriarchy in 19th-century STEMM Education." Lecture for the British Science Festival, *British Science Association (formerly the British Association for the Advancement of Science)*, September 2017.
- "'For Computing Is Our Duty': How Women Became Computers." Lecture for the Algorithmic Thinking Symposium, *UC Berkeley Center for Science, Technology, Medicine and Society, Social Science Matrix, Institute of International Studies*, May 2017.
- "From Practical Mathematics to Army Management: Engineering in the Civil War." Mathematics Seminar lecture sponsored by the Department of Mathematics, *Marist College*, March 2012.

CONFERENCE PRESENTATIONS (REFEREED)

- "Sounds of Sound Health: Historical Traditions of Student Singing about Health and Science," *Conference on College Composition and Communication (Virtual)* 2020.
- "Turning Health Fears into a Joke: Vassar Students' Covert Rhetorics of Ridicule, 1860s-1880s," *International Society for the History of Rhetoric*, New Orleans, July 2019.
- "Religious Mourning and Mathematical Achievement: Burying Anna Lytics at 1870s Bowdoin College (and Bates College)," *Conference on College Composition and Communication*, Kansas City, March 2018.
- "Performing 'Trig': The Stakes of Embodying Mathematics in Student Plays," *The History of Science Society Annual Meeting*, Atlanta, November 2016. (Women's Caucus Featured Roundtable)
- "The Drug of Women's Education: Dr. E.H. Clarke's *Materia Medica* as Context for his *Sex in Education* (1873)," *The History of Science Society Annual Meeting*, Atlanta, November 2016.
- "Studying Objects, Objectifying Students: Natural History at New York State Women's Colleges, 1861-1875," *The Interdisciplinary Nineteenth-Century Studies Conference*, Asheville, NC, March 2016.
- "Performing Trigonometry: Scientific Parody and Women's Mathematical Abilities in Late-Nineteenth-Century America." *The History of Science Society Annual Meeting*, San Francisco, November 2015.
- "Who's Anna? Burying Mathematics Books in order to Remember the Civil War Dead at Nineteenth-Century New England Colleges." Special Session about the History and Philosophy of Mathematics, *American Mathematical Society (Eastern Section)*, Georgetown University, Washington, D.C., March 2015.
- "Burying Anna (Lytics): Mathematics Rituals and College Communities after the Civil War." *The History of Education Society Annual Meeting*, Indianapolis, November 2014.

- “Learning the Ceremonial Rites of Engineers: Industrialization and Book Burning in 1840s America.” *The Interdisciplinary Nineteenth-Century Studies Conference*, University of Houston, March 2014.
- “The Burial of Euclid: Defacing Geometry in Early-Nineteenth-Century America.” Special Session about the History and Philosophy of Mathematics, *American Mathematical Society (Eastern Section)*, Boston College, Massachusetts, April 2013.
- “Mathematical Work, Mathematical Leisure: The Education of American Adolescents in the Early Nineteenth Century.” *The Interdisciplinary Nineteenth-Century Studies Conference*, University of Virginia, March 2013.
- Rebecca Edwards, Peter Bunten, Laura Kasson Fiss, and Andrew Fiss. “Teaching the U.S. Antislavery Movement through Music.” (with “*The Annual Conference for the New York State Council for Social Studies and New York State Social Studies Supervisors Association*,” Rye Brook, New York, March 2013.
- “(En)gendering American Mathematics: Mathematics Education at Male Colleges and Female Seminaries, 1819-1840.” *The History of Science Society Annual Meeting*, San Diego, California, November 2012.
- “Problems of Abstraction: Defining an American Standard for Collegiate Mathematics Education at the Turn of the 20th Century.” *The History of Science Society Annual Meeting*, Montréal, Quebec, November 2010.
- “The Effects of the Civil War on College-Level Math Education.” *History and Pedagogy of Mathematics (Americas Section)*, Washington, D.C., March 2010.
- “The Civil War and American Mathematics: How the Wartime Employment of Mathematicians Transformed the Discipline.” *The History of Science Society Annual Meeting*, Phoenix, Arizona, November 2009. (Poster Session)
- “Matrix: The History of a Mathematical Idea.” *The “Challenges to Change/New Voices in Academia” Conference*, Indiana University, March 2009.
- “Situated Knowledge and the Limits of History.” *The “Open Secrets” Graduate Conference*, Indiana University, March 2008.
- “A Case Study in Industrial Math: Ultrasound.” *Hudson River Undergraduate Mathematics Conference*, Williams College, April 2005.

LOCAL AND REGIONAL WORKSHOPS LED (INCLUDING COMMENTARY, ROUNDTABLES, AND OTHER)

- Andrew Fiss and Maria Bergstrom, “Faculty-guided Peer-to-Peer Learning in the Online Classroom,” *Upper Peninsula Teaching and Learning Conference*, May 2019.
- Andrew Fiss and Karla Kitalong, “4 Tips to Jump-Start Your Writing.” Workshop for the *Michigan Physiological Society*, June 2018.
- Andrew Fiss and Laura Kasson Fiss, “The Matematikado.” Feminists Reading Feminists, *Michigan Tech Humanities Department*, March 2018.
- Andrew Fiss and Laura Kasson Fiss, “Science Songs in Formal and Informal Education.” Teachers of Tomorrow Lecture Series, *Michigan Tech Teachers of Tomorrow Student Group*, April 2017.
- “Sojourner Truth’s ‘Hymn’ (1875).” Feminists Reading Feminists, *Michigan Tech Humanities Department*, March 2017.
- “When Pop Culture & Science Collide.” Commentary for the RTC Graduate Colloquium, *Michigan Tech Program in Rhetoric, Theory, and Culture*, January 2017.

- “Learning from the Past: 19th Century Student Perspectives on Science Education.” Presentation for TechTalks, *Michigan Tech Research Forum*, December 2016.
- “The Humanities and the Education of the Engineer.” Commentary for the RTC Graduate Colloquium, *Michigan Tech Program in Rhetoric, Theory, and Culture*, January 2016.
- “Podcasting Workshop: Sound in Multimodal Composition.” First-Year Composition Instructors, *Michigan Tech Composition Program*, October 2014.
- “Staring at a Blank Screen: How to Begin with Science Writing?” Presentation for the Catalyst Group, *North Carolina Research Campus*, November 2013.
- “Experimenting in the Kitchen: The Relevance of Nineteenth-Century Home Economics for the Twenty-First Century.” Faculty Research Presentation during New Student Orientation, *Vassar College*, August 2012.
- “Reexamining ‘The Great Experiment’: Vassar Students as Objects of Scientific Scrutiny, 1865-1875.” First Friday lecture sponsored by the Programs in Science, Technology, and Society (STS) and Women’s Studies, *Vassar College*, April 2012.
- “Reforming American Education: The Life and Afterlife of the Committee of Ten’s Mathematics Conference.” The History and Philosophy of the Physical Sciences Workshop, *Indiana University*, October 2010.
- “Stories of Women in Science (The Case of Christine Ladd Franklin).” Women’s History Month lecture sponsored by AGEP and the Office of Women’s Affairs, *Indiana University*, March 2007.
- “Recovering Barba’s Alchemy.” Latino Graduate Student Association Research Roundtables, *Indiana University*, January 2006.
- “Ultrasonic Beam-forming with the Genetic Algorithm.” Research lecture sponsored by the Department of Physics and Astronomy, *Vassar College*, October 2004.

WORKSHOPS/CONFERENCES ATTENDED

- Advocates and Allies, ADVANCE at Michigan Tech - October 2019
- New Faculty Mentoring Breakfast, Michigan Tech Student Success Center - October 2018
- Design Thinking Workshop, Michigan Tech Pavlis Honors College - August 2018
- Professional Development for Research Trip, Michigan Tech Research Office - May 2018
- Lessons from Alan Alda on Engaging Communication, Professional Development - May 2018
- Association of Teachers of Technical Writing, Kansas City - March 2018
- Science Communication Workshop through the Alan Alda Center - August 2017
- Algorithmic Thinking Symposium, Berkeley - May 2017
- Conference on College Composition and Communication, Portland, Oregon - March 2017
- Student Perceptions of Tech Teaching, Michigan Tech Teaching & Learning - November 2016
- UP-STEAM (STEM + Arts) Pilot Workshop, Michigan Tech - Summer 2016
- Pedagogy in Action Summer Institute, Vassar College Writing - Summer 2012

GRANTS

- Senior Personnel in Kathy Halvorsen (PI), “GCR: Foundations for a Convergent Discipline in Socio-Technical System Transitions through Research on Michigan Community and Anishinaabe Renewable Energy Sovereignty (MICARES),” *National Science Foundation*, Summer 2020-Summer 2025. (Funded) (\$17,981.)
- Participant in Marika Seigel and Mary Raber (PIs), “Human-Centered Engineering Initiative,” *NEH Humanities Planning Grant*, Fall 2019-Summer 2020. (Funded) (\$1,570.)

- Guest Speaker in Val Gagnon (PI), “Ge-izhi-mawanji-idiyang dazhindamang gidakiiminaan (the way in which we meet to talk about our earth),” *Native American Heritage Fund*, Winter 2018-Summer 2019. (Funded) (\$400.)
- Co-PI in John Velat (PI), “Guidance for Employer-Based Behavioral Traffic Safety Programs for Drivers in the Workplace,” *National Academies of Science, Engineering, and Medicine*, August 2018-August 2020. (Declined)
- PI in “Mathematical Textbooks, Toys, and their Historical Traces: Investigating Artifacts at the Smithsonian Libraries and Museums,” *Michigan Tech Research Excellence Fund*, July 2018-June 2019. (Funded) (\$3,009.)
- PI in “Science Songs: Science Communication in Early-Twentieth-Century Songbooks,” *National Endowment for the Humanities*, Summer 2018. (Rejected)
- Co-PI in “Science and Technology Studies (STS) in the Liberal Arts,” *Alliance to Advance Liberal Arts College Collaborative Workshop Grant*, 2013. (Funded)

TRAVEL GRANTS

- History of Science Society Grant for Conference Travel (2016)
- National Science Foundation Grants for Conference Travel (2010, 2012, 2015)
- College of Arts and Sciences (Indiana University) Grant for Conference Travel (2009)

AWARDS AND FELLOWSHIPS

- Richard Westfall Fellowship, Indiana University (2010)
- Alliances for Graduate Education and the Professoriate (AGEP) Award from the National Science Foundation (2005-2010)
- Phi Beta Kappa, Mu Chapter of New York, Vassar College (2005)
- Adolf Sutro Fellowship, Vassar College (2005)

CLASSES TAUGHT

MICHIGAN TECHNOLOGICAL UNIVERSITY

- Humanities 2130: Introduction to Rhetoric
- Humanities 3120: Technical and Professional Communication
- Humanities 3130: Rhetorics of Science and Technology
- Humanities 3557: Literature and Science
- Humanities 3693/4693: Science Writing
- Humanities 3694: Grant Writing
- Humanities 4600: Humanities Internship
- Humanities 5003: Technical and Scientific Communication
- Humanities 6070: Public Understandings of Science

- Guest Lecturer for Keweenaw Bay Ojibwe Community College (2019)
- Guest Lecturer for FW 4800 Communications for Natural Resources Professionals (2019)

DAVIDSON COLLEGE

- Writing 101: Science and its Publics (Writing Seminar)
- History 142: The United States since 1877
- History 259: American Scientific Controversies, 1813-2013

VASSAR COLLEGE

STS 180: The Scientific Child
 STS 184: Topics in the Global History of Science/Medicine (Writing Seminar)
 STS 200: Science and Technology Studies
 STS/WMST 248: Gender and Science
 STS/WMST 375: Race, Gender, and Science (w/ Jill Schneiderman)

INDIANA UNIVERSITY

HPSC X102: Revolutions in Science: Plato to NATO
 HPSC X123: Feminism, Science, and Society

ADVISING*MICHIGAN TECHNOLOGICAL UNIVERSITY*

- **Doctoral Advisory Committee Chair**, Tori Reeder (2020-present)
- **Masters Advisory Committee Chair**
 - Emily Simmons (2017-2018), “Accessing Library Space: Spatial Rhetorics from the U.S. to France and Back Again” (now at the University of North Carolina)
 - Emma Lozon (2017-2018), “Communicating the Health Impacts of Climate Change: From Conviction to Persuasion” (now PhD candidate, Michigan Tech)
 - Richard Ward (2016-2017), “The Visual and Performing Arts in the Technical Communication Classroom: Reinforcing the University’s Internal Community Literacy via Service-Learning” (now PhD student, Michigan Tech)
- **Doctoral Advisory Committee Member**, Shelly Galliah (2015-2020), Richard Ward (2017-present), Emma Lozon (2018-present), John Velat (2019-present), Aaron Hoover (2019-present), William De Herder (2020-present)
- **Co-Advisor for Undergraduate Research (through SURF)**, Savannah de Luca (Summer 2017)
- **Mentor for Honors Project**, Riley Stroven (2018) and Timothy Jackson (2019)

DAVIDSON COLLEGE

- **Third Reader**, Senior Thesis by Darden Callaway (2013-14)

VASSAR COLLEGE

- **Advisor**, Senior Theses by Matthew Rosenthal, Aaron Steinberg, and Kaylee Knowles (2011-13)
- **Second Reader**, Senior Theses by Michelle Farinella, Olivia Arnow, and Henry Liang (2011-13)
- **Pre-Major Advisor** (2012-13)

SERVICE (EDITORIAL AND REVIEW)

- Article Reviewer (ad hoc), **Peitho Journal** (2018, 2020)
- Grant Reviewer (ad hoc), **National Science Foundation’s STS Directorate** (2016-2017)

UNIVERSITY SERVICE*ASSOCIATED WITH PRESIDENTIAL INITIATIVE, TECH FORWARD*

- Affiliate, **Institute for Policy, Ethics, and Culture** (2020-present)

- Member, **IDEA Hub Human Factors Task Force** (2020-present)
- Member, **IDEA Hub NEH Working Group** (2019-present)
- Advisory Member, **Tech Forward Health and Quality of Life** (2019)
- Member, **Tech Forward Ethics, Policy, Culture (EPC) Subgroup on Algorithmic Culture** (2019)

TRANSDISCIPLINARY EDUCATION

- Member, **WRITE-D (Writing in the Disciplines) University Graduate School Program** (2019-present)
- Judge, **Design Expo**, Pavlis Honors College (2018-present)
- Faculty Co-Advisor, **Michigan Tech Inventory of Historic Scientific Instruments** (2016-present)
- Member, **Environmental Stewardship and Indigeneity Group** (2019)
- Discussant, **Mental Health Book Group**, Student Health and Wellness (2018)
- Mentee, **Early Career Mentoring Committee**, Academic Affairs (2016-2017)
- Member, **UP-STEAM (STEM + Arts) Convening Committee** (2015-2016)

ASSESSMENT

- Assessor, **Goal 5 (Communication)**, General Education (2019)
- Assessor, **Goal 4 (Critical and Creative Reasoning)**, General Education (2018)

DEPARTMENT SERVICE

- Member, **Scientific and Technical Communication (STC) Steering Committee** (2014-present)
- Advisor, **Society for Technical Communication Student Chapter** (2014-present)
- Library Liaison, **Humanities Department** (2019-present)
- Member, **Search Committee for Humanities Department Chair** (2019-2020)
- Chair, **Search Committee for Visiting Assistant Professor** (2018-2019)
- Member, **Diversity Studies Committee** (2017-2018)
- Director, **Humanities Internship Program** (2014-2016)

K-12 OUTREACH

- Member, **Hidden Figures Committee**, Center for Pre-College Outreach (2017)

PAST SERVICE (DAVIDSON COLLEGE, VASSAR COLLEGE, AND COMMUNITY ENGAGEMENT)

- Board Secretary, **Temple Jacob**, Hancock, MI (2015-2018)
- Member, **Faculty of Color Group**, Davidson College (2013-14)
- Ex-officio member, **STS Steering Committee**, Vassar College (2011-13)
- Workshop liaison, **STS in the Liberal Arts**, Vassar College (2012-13)
- Singer, **Mid Hudson Antislavery History Project** (2012-13)

PROFESSIONAL MEMBERSHIPS

International Society for the History of Rhetoric
 Association of Teachers of Technical Writing
 National Council of Teachers of English
 History of Education Society

History and Pedagogy of Mathematics Group
History of Science Society
Alliances for Graduate Education and the Professoriate
Phi Beta Kappa