

EMILY YORK

ASSOCIATE PROFESSOR
INTEGRATED SCIENCE AND TECHNOLOGY

School of Integrated Sciences
James Madison University
702 Carrier Drive, MSC 4302
Harrisonburg, VA 22807
yorker@jmu.edu

OVERVIEW

I am an Associate Professor in the School of Integrated Sciences at James Madison University (JMU). Drawing on the fields of Science and Technology Studies (STS), cultural studies, critical university studies, education and communication, my research examines practices of multidisciplinary collaboration and knowledge production at the intersection of critical feminist/liberatory/STS pedagogies, the learning sciences, and the political economies of higher education and high-tech innovation. My teaching scholarship works to develop methods of integrating ethical reasoning and critical inquiry into STEM curricula, and I work with colleagues from engineering, natural sciences, social sciences, and humanities to collaboratively develop rich learning experiences for undergraduate STEM students. I am the co-director of the STS Futures Lab at JMU, an innovative applied STS lab that aims to develop capacities for critical imagination and responsible innovation at the intersection of research and pedagogy. I also serve as an Associate Editor for the open access 4S journal *Engaging Science, Technology, and Society (ESTS)* as part of a transnational editorial collective, in which my primary focus is to develop the journal's engagement with STS pedagogies.

EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO	SAN DIEGO, CA
Ph.D., Communication & Science Studies	2016
Dissertation: "Nano Dreams and Nano Worlds: The Emergence and Disciplinary Formation of Nanoengineering"	
UNIVERSITY OF CHICAGO	CHICAGO, IL
M.S. Computer Science	2001
UNIVERSITY OF CHICAGO	CHICAGO, IL
A.B. with honors, English Language & Literature	2000

ACADEMIC APPOINTMENTS & EMPLOYMENT

JAMES MADISON UNIVERSITY, SCHOOL OF INTEGRATED SCIENCES	HARRISONBURG, VA
Assistant Professor, Integrated Science and Technology	2016-Current
Courses Taught:	
<ul style="list-style-type: none">• The Future of Learning at JMU• Cultural, Ethical, and Legal Issues in Computing• Governance of Sociotechnical Systems• Technology, Science and Society• Ethical, Legal, and Societal Implications of Biotechnology• Holistic Problem-Solving Workshop: Privacy in a Connected World• STS Futures Lab• Design Fiction	
UNIVERSITY OF CALIFORNIA, SAN DIEGO	SAN DIEGO, CA
Graduate Instructor of Record, Department of Communication	2013-16
Teaching Assistant, Writing Programs and Department of Communication	2011-13
FRIEDRICH, KLATT & ASSOCIATES	CHICAGO, IL
Managing Consultant, Software Development and Project Management, 2004-2010	2001-2010
Consultant, Software Development and Project Management, 2001-2004	

SELECTED AWARDS, FELLOWSHIPS, GRANTS, HONORS

National Science Foundation Grant (PI), Collaborative Research and Education Architecture for Transformative Engagement with STS (CREATE STS) (\$305K)	2021
Madison Trust grant, "Collaborative Pedagogies Across the Curriculum: Imagining Justice"	2021
National Renewable Energy Laboratory Collegiate Wind Competition (Co-PI)	2020, 2021
National Science Foundation Grant (Co-PI), STS as a Critical Pedagogy Workshop	2019
Colonial Academic Alliance Innovation/Collaboration Grant (PI), "Ethical Reasoning in STEM Through Mutli-Disciplinary Collaborative Teaching" with Drexel University	2019
4-VA (Co-PI), "Toward T-Shaped Graduates: A Joint Capstone Program at the Nexus of Mechanical Engineering and Science and Technology Policy" With George Mason University	2019
4-VA (Co-PI), "STS and STEM in the Commonwealth: An Interdisciplinary Cross-Institutional Virginia Partnership" With University of Virginia, Virginia Tech, and Virginia Commonwealth University	2019
Accelerating Creative Teaching (ACT) grants, Libraries and Educational Technologies, JMU	2017, 2019
College of Integrated Science and Engineering Faculty Development Grants	2018, 2019
Excellence in Teaching & Learning with Technology Award, JMU	2018
NNCI Workshop on Responsible Innovation (Competitive, Funded)	2017
Engaged Teacher-Scholar Program (Competitive, Funded), Center for Faculty Innovation, JMU	2017-2018
Object Lessons Institute (Competitive, NEH Funded)	2017
Institute for Online and Blended Learning (Competitive, Funded), JMU	2017
Visiting Fellowship (Competitive, Funded), Innovation Society Today Research Group, Technical University Berlin	2014

PUBLICATIONS

Patterson, Chris, Emily York, Danielle Maxham, Rudy Molina, and Paul Mabrey. 2023. "Applying a Responsible Innovation Framework in Developing an Equitable Early Alert System:: A Case Study". *Journal of Learning Analytics* 10 (1):24-36. <https://doi.org/10.18608/jla.2023.7795>.

Emily York. "Interspecies Ethics and the Limits of Epistemic Authority in Karen Joy Fowler's *We Are All Completely Beside Ourselves*." *Configurations* 30, no. 1 (2022): 77-104. [doi:10.1353/con.2022.0003](https://doi.org/10.1353/con.2022.0003).

Shannon N. Conley, Brad Tabas & Emily York (2022) Futures labs: a space for pedagogies of responsible innovation, *Journal of Responsible Innovation*, DOI: [10.1080/23299460.2022.2129179](https://doi.org/10.1080/23299460.2022.2129179)

Emily York, Wilcox, D., Stewart, J., McCarthy, S., Barron, K. (2022). Transforming Emergency into Opportunity: Unleashing the Creative Potential of Student-Faculty Collaborations to Prototype Better Educational Futures in Response to Crisis. In: Dennen, V., Dickson-Deane, C., Ge, X., Ifenthaler, D., Murthy, S., Richardson, J.C. (eds) *Global Perspectives on Educational Innovations for Emergency Situations*. Educational Communications and Technology: Issues and Innovations. Springer, Cham. https://doi.org/10.1007/978-3-030-99634-5_21

Shannon N. Conley, Emily York. 2020. "Public engagement in contested political contexts: reflections on the role of recursive reflexivity in responsible innovation." *Journal of Responsible Innovation*. 7:sup1, 1-12. <https://doi.org/10.1080/23299460.2020.1848335>

York Vitae

Emily York, Shannon N. Conley. 2020. "Creative Anticipatory Ethical Reasoning with Scenario Analysis and Design Fiction." *Science and Engineering Ethics*. 26, 2985-3016. <https://doi.org/10.1007/s11948-020-00253-x>

Emily York, et al. 2019. "Co-Imagining the Futures of Implementation Precision Medicine Using Scenario Analysis and Design Fiction." *OMICS: A Journal of Integrative Biology*. 2019: 23 (7).

Emily York, Ahmad Salman. 2019. "Privacy in a Connected World: Integrating Ethical Reasoning into an Applied Science Curriculum Through Holistic Problem Solving." *Teaching Ethics*. 10:2. Fall 2019. <https://doi.org/10.5840/tej202091480>

Emily York, Shannon N. Conley. 2019. "Critical Imagination at the Intersection of STS Pedagogy and Research." Invited blog post for the Committee for the Anthropology of Science, Technology, and Computing. *Platypus: The CASTAC Blog*. 2019. <http://blog.castac.org/2019/11/critical-imagination-at-the-intersection-of-sts-pedagogy-and-research/>

Emily York, Shannon N. Conley, Samuel Kodua. 2019. "The STS Futures Lab at James Madison University: Integrating Design Fiction, Experimental Pedagogy, and Anticipatory Research into STEM Education and Outreach". *Circe Magazine: STEAM Edition*, 2019, pp 81-85. <http://online.anyflip.com/mbnj/nkhc/mobile/index.html>

Emily York. 2018. "Doing STS in STEM Spaces: Experiments in Critical Participation." *Engineering Studies*, pp 1–19. [Web](#)

Emily York. 2015. "Smaller is Better? Learning an Ethos and Worldview in Nanoengineering Education." *NanoEthics* <http://link.springer.com/article/10.1007/s11569-015-0232-3> August 2015, Volume 9, Issue 2, pp 109-122.

Emily York. 2015. "Nanodreams and Nanoworlds: *Fantastic Voyage* as a Fantastic Origin Story." *Configurations*. <https://muse.jhu.edu/login?auth=0&type=summary&url=/journals/configurations/v023/23.3.york.html> Fall 2015, Volume 23, Number 3, pp. 263-299.

SELECTED PROFESSIONAL SERVICE

INTELLECTUAL COMMUNITY

Associate Editor, <i>Engaging Science, Technology, and Society</i>	2019-Current
Editorial Board Member, <i>Engineering Studies</i> (previously Advisory Editor and Associate Editor, 2017-2022)	2023-Current
National Science Foundation, Reviewer on multiple panels	2021-Current
International Scientific Advisory Board Member, Doctoral School of Social Sciences, University of Vienna	2023-Current
Manuscript Reviewer, <i>Engineering Studies</i> , <i>Social Studies For Science</i> , <i>NanoEthics</i> , <i>Catalyst</i>	

JAMES MADISON UNIVERSITY, UNIVERSITY WIDE

Provost's Committee on Teaching Evaluation	2023-Current
Public Interest Technology-University Network Designee	2023-Current
External APR Chair	2023
QEP Working Group Member	2021-2022
Board Member, Institute for Creative Inquiry	2018-2022
Advisory Board Member, Cohen Center for the Humanities	2017-19
Teaching Analysis Poll Consultant, Center For Faculty Innovation	2017-19
Facilitator, It's Complicated Freshman Orientation Workshop on Ethical Reasoning	2017-19

JAMES MADISON UNIVERSITY,

yorker@jmu.edu

COLLEGE OF INTEGRATED SCIENCE AND ENGINEERING (CISE) & SCHOOL OF INTEGRATED SCIENCES (SIS)

SIS Faculty Senator	2021-Current
Co-Chair, Assessment Committee, Integrated Science and Technology, SIS	2016-2023
Member, Public Interest Technology & Science Academic Team	2016-2023
Affiliated Member, Applied Computing Academic Team	2021-Current
Chair, CISE Faculty Council	2019-2021
Member, Student Evaluations Redesign Committee, School of Integrated Sciences	2016-2020
Alternate Member, College Faculty Leaves and Grants Committee	2018-19
Contributing organizer, CAPWIC Conference	2019
Member, Computing Taskforce, Integrated Science and Technology	2018
Member, Foundations Redesign Committee, Integrated Science and Technology	2016-18
Member, ABET Accreditation Committee, Integrated Science and Technology	2017-18
Advisor, Theta Tau professional fraternity	2018-2021

PRESENTATIONS AND INVITED TALKS

2023

Presenter, "Teaching and Learning Writing With ChatGPT: A Faculty and Student Perspective." *Presentation. Co-Presenter Isaiah Martinez (undergraduate student). Future of Writing Symposium, University of Southern California, United States*

2022

Presenter, "Envisioning a Just Future: Weaving Together Science and the Humanities as a Model of Inclusive Teaching in Higher Education." *Presentation. Co-Presenters Daisy Breneman, Shannon N. Conley, Cindy Klevickis, Christine May, Holly Yanacek. Society for the Social Studies of Science (4S), Cholula, Mexico*

Presenter, "Envisioning Just Futures: Weaving Together Science and the Humanities."
Poster. Co-Presenters Daisy Breneman, Shannon N. Conley, Cindy Klevickis, Christine May, Holly Yanacek. Conference on Higher Education Pedagogy. Virginia Tech, Virginia, United States

Invited Workshop, "Ethics+Tech Pedagogy."
Co-Facilitator Shannon N. Conley. NYU Tandem School of Engineering. Virtual.

Invited Plenary, "STS Gardening in Virginia."
STS Across the Commonwealth. University of Virginia, Virginia, United States.

2021

"STS as a Critical Pedagogy."
Chaired two Open Panels and a Round Table session. 4S. Virtual.

Invited Roundtable Participant, "Critical Participation in Engineering/STEM Education: Extending Critique Through Practices of Knowledge Expression and Travel."
American Society of Engineering Education. Virtual.

Invited Roundtable Participant, "Engineering Studies Editorial Staff: Who We Are, What Do We Do Work On, Who Are We Missing."
International Network of Engineering Studies Meeting. Virtual.

Invited Panelist, "Let's Talk About It: Semi-Structured Discussions for Engaging Students in Diversity, Equity, and Inclusion in Computing," in the panel "How We Build."

International Network of Engineering Studies Meeting. Virtual.

Invited Workshop, "STS Pedagogies Workshop."

Co-Facilitator Shannon N. Conley. STGlobal. Virtual.

Invited Feature Panel, "Seeding cultures of research-focused and inclusive innovation in higher education."

With Seàn McCarthy, Diane Wilcox, Kenn Barron, Jonathan Stewart. International Joint Conference on Information, Media, and Engineering (IJCIME). Virtual.

Invited Keynote Speaker, NSF-funded symposium on the "Futures of STS in Engineering and Polytechnic Universities"

Missouri S&T. Rolla, Missouri.

2020

Invited Talk, "Creative Anticipatory Ethical Reasoning (CAER) in Context."

Co-Author Shannon N. Conley. Colorado School of Mines.

2019

"Scenario Analysis as Pedagogy, Research, and Expert Engagement: Using Scenarios and Design Fiction to Imagine and Critique Climate Futures"

Co-Author Shannon Conley. Scenarios and the Politics of the Future at the Climate-Security Nexus. Funded. Hamburg, Germany.

"The STS Futures Laboratory: Experimental Engagements at the Intersection of Science Fiction and Science Fact"

Co-Author Shannon Conley. Society for Science, Literature, and the Arts. Irvine, California.

"The STS Futures Lab at the Intersection of Research and Pedagogy"

Co-Author Shannon Conley. Innovating STS Digital Exhibit. Society for the Social Studies of Science (4S). <https://stsinfrastructures.org/content/sts-futures-lab-intersection-research-and-pedagogy/essay> New Orleans, Louisiana.

"Cultivating Interdisciplinary Trading Zones and Building Interactional Competence: An Experiment in Co-Imagining Sociotechnical Futures with Contributory Experts"

Co-Author Shannon Conley, Sam Kodua (undergrad). Studies of Expertise and Experience Workshop. Funded. Helsinki, Finland.

"Ecology, Difference, and Boundary-Crossing: Toward Radical Interdisciplinarity"

Association for the Study of Literature and Environment. Davis, California.

"Le Guin in STEM Pedagogies: Bridging Science and Literature to Engage Undergraduate STEM Students in Critically Interrogating Plausible Futures"

Legacies of Ursula K. Le Guin: Science, Fiction and Ethics for the Anthropocene. Paris, France.

Invited Talk: "Envisioning Futures Across Disciplines"

Co-Author Shannon Conley. Institute for Creative Inquiry, JMU. Harrisonburg, Virginia.

“Anticipatory Ethical Reasoning”

Co-Author Shannon Conley. Conference on Higher Education Pedagogy. Blacksburg, Virginia.

2018

“Integrating Ethics into an Applied Science Curriculum Through Holistic Problem Solving”

Co-Author Ahmad Salman. Society for Ethics Across the Curriculum Annual Meeting. Rochester, New York.

“Critically Engaging the Future with Scenario Analysis and Design Fiction”

Conference on Higher Education Pedagogy. Blacksburg, Virginia.

Invited Talk: “NanoEngineering As Translational Research”

STS Colloquium, University of Virginia. Charlottesville, Virginia.

2017

“We Are All Completely Beside Ourselves as a Feminist STS Intervention”

International Communication Association Annual Meeting. San Diego, California.

“Using Scenario Analysis in the Domain of Driverless Cars to Engage STEM Students in Ethical Reasoning”

Co-Author Shannon Conley. SIGCSE 2017 Computing & Society Workshop

“A Future History of Nanoengineering”

NNCI Winter School on Responsible Innovation. Mesa, Arizona.

“Autonomous Vehicles as Sensing Robots and As Forms of Life”

Co-Author Chase Collins, Charles Boyd*, Shannon Conley. Social Studies of Science Annual Meeting. Boston, Massachusetts. *Presenters.*

“Anticipating Autonomous Vehicles”

Co-Author Chase Collins, Charles Boyd, Shannon Conley*. Society for the Study of New and Emerging Technologies Annual Meeting. Tempe, Arizona. *Presenters.*