Laura Jones Perovich

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Department of Art + Design
College of Arts, Media, and Design
Northeastern University

EMPLOYMENT

2020 –　　　　Assistant professor, Art + Design, Northeastern University
2012 – 2020　Research assistant, Media Arts and Science, Massachusetts Institute of Technology
2007 – 2012　Research assistant, Silent Spring Institute
2005 – 2007　Math teacher, United States Peace Corps

EDUCATION

Massachusetts Institute of Technology　　　　　Ph.D. 2020, Media Arts and Sciences
Dissertation: From data physicalization to data experiences: combining art, science, technology, and community to move towards collective action on environmental challenges

Massachusetts Institute of Technology　　　　　S.M. 2014, Media Arts and Sciences
Thesis: Data Experiences: novel interfaces for data engagement using environmental health data

Bowdoin College　　　　　A.B. 2005, Mathematics (Honors) & Religion
Phi Beta Kappa, magna cum laude

CONFERENCE PROCEEDINGS

Perovich, L. J., C. Titcomb, T. Hirsch, B. Helmuth, C. Harteveld. *Sustainable HCI Under Water: Opportunities for Research with Oceans, Coastal Communities, and Marine Systems*. Submitted to: ACM CHI Conference on Human Factors in Computing Systems (CHI 2023) [Accepted].

Perovich, L.J., B. Rogowitz, V. Crabb, J. Vogelsang, S. Hartleben, D. Offenhuber. *The Tactile Dimension: a Method for Physicalizing Touch Behaviors*. Submitted to: ACM CHI Conference on Human Factors in Computing Systems (CHI 2023) [Accepted].

Perovich, L.J., M. Alper, C. Cleveland. *"Self Quaranteens" process COVID-19: understanding information visualization language in memes*. Proceedings of the ACM on Human-Computer Interaction. 6, Article 47, Computer Supported Cooperative Work (CSCW), April 2022.

Rogowitz, B., L.J. Perovich, Y. Li, B. Kierulf, D. Offenhuber. *Touching Art - A Method for Visualizing Tactile Experience*. alt.VIS workshop co-located with IEEE Transactions on Visualization and Computer Graphics (IEEE VIS), October 2021.

Perovich, L.J., S.A. Wylie, R. Bongiovanni. *Chemicals in the Creek: designing a situated data physicalization of open government data with the community*. IEEE Transactions on Visualization and Computer Graphics (IEEE VIS). 27(2), p. 913-923. February 2021.

Perovich, L., P. Mothersill, J. Broutin-Farah. *Awakened Apparel: Embedded Soft Actuators for*

Expressive Fashion and Functional Garments. TEI: International Conference on Tangible, Embedded and Embodied Interaction, 2014; Germany.

Ervin, C., D. Dand, R. Hemsley, D. Nunez, L. Perovich. *What's Cookin?: A Platform for Remote Collaboration.* CHI 2013 Extended Abstracts on Human Factors in Computing Systems: 2799-2800.

In preparation

Perovich, L.J., I.D. Vidrin, N. Zizzi, V. Palacin, R. Bhargava. *Embodying Information: Representing Data through and with the Body.* Submitted to: ACM CHI Conference on Human Factors in Computing Systems (CHI 2023) [In preparation].

JOURNAL ARTICLES

Bhargava, R., Brea, A., Palacin, V., Perovich, L., & Hinson, J. (2022). *Data theatre as an entry point to data literacy.* Special Issue: Learning at the Intersection of Data Literacy and Social Justice. Educational Technology & Society, 25(4), 93-108.

Perovich, L.J., P. Cai, A. Guo, K. Zimmerman, K. Paseman, D. Espinoza Silva, J.B. Brody. *Data Clothing and BigBarChart: Designing Physical Data Reports on Indoor Pollutants for Individuals and Communities.* IEEE Computer Graphics and Applications, 41(1), p. 87-98. January/February 2021.

Udesky, J.O., K.E. Boronow, P. Brown, L.J. Perovich., J.G. Brody. *Perceived Risks, Benefits and Interest in Participating in Environmental Health Studies that Share Data: A U.S. Survey of Prospective Participants.* Journal of Empirical Research on Human Research Ethics, 2020.

Boronow, K.E., L.J. Perovich, L. Sweeney, J. Yoo, R.A. Rudel, P. Brown, J.G. Brody. *Privacy Risks of Sharing Data from Environmental Health Studies.* Environmental Health Perspectives, 128(1): 17008, 2020.

Udesky, J.O., R.E. Dodson, L.J. Perovich, R.A. Rudel. *Wrangling Environmental Exposure Data: Guidance for Getting the Best Information from your Laboratory Measurements.* Environmental Health, 18:99, 2019.

Perovich, L.J. *Environmental Art: a path to civic progress in a time of policy retreat in the United States.* Cogent Arts & Humanities, 5:1, 1-18, 2018.

Perovich, L.J., S. Wylie, R. Bongiovanni. *Pokémon Go, pH, and projectors: applying transformation design and participatory action research to an environmental justice collaboration in Chelsea, MA.* Cogent Arts & Humanities, 5:1, 1-22, 2018.

Perovich, L.J., J.L. Ohayon, E.M. Cousins, R. Morello-Frosch, P. Brown, G. Adamkiewicz, J.G. Brody. *Reporting to parents on children's exposures to asthma triggers in low-income and public housing, an interview-based case study of ethics, environmental literacy, individual action, and public health benefits.* Environmental Health, 17:48, 2018.

Sweeney L, J. Yoo, L. Perovich, K. Boronow, P. Brown, J. Brody. 2017. *Re-identification Risks in HIPAA Safe Harbor Data: A study of data from one environmental health study.* Technology Science: 2017082801.

Zarate, O., J.G. Brody, P. Brown, M.D. Ramirez-Andreotta, L. Perovich, J. Matz. *Balancing Benefits and Risks of Immortal Data: Participants' Views of Open Consent in the Personal Genome Project.* The Hastings Center Report, Vol 46, Issue 1, p. 36–45, January/February 2016.

Dodson, R.E., N.Van den Eede, A. Covaci, L.J. Perovich, J.G. Brody, R.A. Rudel. *Urinary*

Biomonitoring of Phosphate Flame Retardants: Levels in California Adults and Recommendations for Future Studies. Environ. Sci. Technol., 2014, 48 (23), pp 13625–13633

Dodson, R.E., L.J. Perovich, A. Covaci, N. Van den Eede, A.C. Ionas, A.C. Dirtu, J.G. Brody, R.A. Rudel. *After the PBDE phase-out: A broad suite of flame retardants in repeat house dust samples from California*. Environmental Science & Technology, 2012; 46 (24).

Rudel, R.A. and L.J. Perovich. *Accurate risk-based chemical screening relies on robust exposure estimates*. Toxicological Sciences, 2012; 128 (1): 295-296.

Dodson, R.E., M. Nishioka, L.J. Standley, L.J. Perovich, J.G. Brody, R.A. Rudel. *Endocrine Disruptors and Asthma-Associated Chemicals in Consumer Products*. Environmental Health Perspectives, July 2012; 120(7): 935–943.

Rudel R.A., R.E. Dodson, L.J. Perovich, R. Morello-Frosch, D.E. Camann, M.M Zuniga, A.Y. Yau, A. Just, J.G. Brody. *Semivolatile endocrine disrupting compounds in paired indoor and outdoor air in two northern California communities*. Environmental Science & Technology. 2010. 44 (17): 6583–6590.

Rudel R.A., L.J. Perovich. *Endocrine disrupting chemicals in indoor and outdoor air.* Atmospheric Environment. 2009; 43: 170-181.

Taylor S., E. Campbell, L. Perovich, J. Lever, J. Pennington. *Characteristics of Composition B particles from blow in-place detonations*. Chemosphere. 2006 Nov; 65(8):1405-13.

Lever J.H., S. Taylor, L. Perovich, K. Bjella, B. Packer. *Dissolution of composition B detonation residuals*. Environmental Science & Technology. 2005 Nov, 15;39(22):8803-11.

Taylor S, A. Hewitt, J. Lever, C. Hayes, L. Perovich, P. Thorne, C. Daghlian. *TNT particle size distributions from detonated 155-mm howitzer rounds*. Chemosphere. 2004 Apr; 55(3):357-67.

BOOK CHAPTERS

Offenhuber, D., L.J. Perovich (equal contributions). *Data as Environment* in Making Data: Materialising digital information. Editor: Ian Gwilt. Bloomsbury, New York, 2022.

Perovich, L.J. *SeeBoat* in Data Physicalization. Editors: Samuel Huron, Lora Oehlberg, Wesley Willett, Till Nagel, 2022.

EXHIBITIONS

Group show: *Untold Possibilities at the Last Minute*, City of Cambridge, MA, 2019
Solo show: *Participatory Self-Portrait,* Wiesner Gallery, MIT, 2019
Community art event: *Chemicals in the Creek*, hosted by GreenRoots, Chelsea, MA, 2018
Community art event: *ArtBoat*, hosted by Magazine Beach Partners, Cambridge, MA, 2018
Community art event: *ArtBoat*, hosted by Revels RiverSing, Allston, MA, 2018
Group show: Award winners, Schnitzer Prize in the Visual Arts at MIT (2nd place), 2016

GRANTS

External

   Applicant, Advancing Informal STEM Learning (AISL) NSF grant, 2023
   Under review: $150,000 18-month support of community based climate change education
   led by Dietmar Offenhuber, with Paolo Ciuccarelli, Skye Moret, and Trustees of Reservations

   Recipient, CRESSH grant, 2018
   Funded: $15,000 9-month support of community based data physicalization research
   with Sara Wylie and Roseann Bongiovanni

   Recipient, Knight Foundation Prototype grant, 2013
   Funded: $35,000 six-month support of data experience research

   Semi-finalist, Knight Foundation News Challenge: Health grant, 2013
   Not funded

Internal

   Recipient, CAMD Impact Group, Northeastern University, 2023
   Funded: $16,000, Climate Change Communication and Impact
   led by John Wihbey, with Matthew Nisbet, Jeffrey Howe, Tom Starr, Maria Elena Villar, David Fannon,
   and Rahul Bhargava

   Recipient, CAMD Impact Group, Northeastern University, 2023
   Funded: $20,000, Embodiment and Creativity
   with Ann McDonald, Ilya Vidrin, Mary Hale, Nicole Zizzi, and Cara Michell

   Recipient, CAMD Strategic Seed Grant, Northeastern University, 2022
   Funded: $10,000, Tactile Information Experiences for Inclusive Museums
   led by Dietmar Offenhuber

   Recipient, CAMD Summer Support Grant, Northeastern University, 2021
   Funded: $10,000, Touching and breathing data: exploring material visualization
   with Dietmar Offenhuber

   Recipient, Northeastern Tier 1 Grant, Northeastern University, 2021
   Funded: $50,000, Mentored Award: Moving Data Beyond the Screen: Creating Hybrid Experiential
   Opportunities for Coastal Sustainability and Food Security
   with Casper Harteveld and Brian Helmuth

   Recipient, CAMD Collaborative Seed Grant, Northeastern University, 2020
   Funded: $5,000, A Touch of Air - Material Perspectives on Contagion
   with Dietmar Offenhuber

Recipient, CAMD Collaborative Seed Grant, Northeastern University, 2020
Funded: $3,500, Embodying Information:The Physicalization of Data Through Performance with Rahul Bhargava

Materials Grant, Council for the Arts at MIT, 2017

Graduate Student RA Fellowship, MIT Media Lab, 2012 - 2020
Elements Environmental Fellowship starting 2018

TEACHING

Northeastern University, Art + Design
ARTG3463 Interaction Design 2, 2023
ARTG3463 Experience Design 2, 2022
ARTG6700 Design Studio 3: Synthesis (co-taught), 2022
TELE7945 Cyber Physical Systems Project, 2022
ARTG5600 Experience Design Studio, 2021
ARTG3451 Information Design, 2021
ARTG4701 Interaction Team Project 2, 2021
ARTG3700 Interaction Design 2: Mobile, 2021
ARTG3463 Experience Design 2, 2020
ARTG4700 Interaction Team Project 1, 2020

Workshops
Data Dancing at Design Museum Week, 2022
Data Moves, 2018 –
Environmental data physicalization, Dagstuhl Seminar, 2018
Microsoft High School Summer Research Program, 2018
Environmental Justice & Citizen Science Workshops, 2016 – 2019
Fabrication from Fabric, Independent Activities Period Course, 2014
Gymnastics program founder, Austine School for the Deaf, 2000 – 2001

RESEARCH MENTORSHIP

Northeastern University
Juno Mollor, Marine Science, 2023 –
Jack Vogelsang, Design, 2022
Victoria Crabb, Design, 2022
Sara Hartleben, Design, 2022
Nicole Zizzi, Architecture (MArch), 2020 –
Catherine Titcomb, Design & Business, 2021 – 2022
Rutvik Patel, Cyber-physical Systems (MS) 2021 – 2022
Gabriela Horenstein, Design & Business, 2021 – 2022
Claudia Stedt, Mathematics & Business, 2021 – 2022
Purti Hardikar, Interaction Design & Information Visualization 2021 – 2022

Bjorn Kierulf, Mechanical Engineering, 2020 – 2021
Emily Schachtele, Health Science (co-mentor), 2018
Shawn Sullivan, Architecture (co-mentor), 2018

MIT Media Lab
Talia Spitz, Mechanical Engineering, 2019
Simon Ganeles, Mechanical Engineering, 2019
Rima Rebei, Mechanical Engineering, 2019
Jacqueline Chen, Architecture, 2018 – 2019
Maggie Zhang, Electrical Engineering & Computer Science, 2018
Gustavo Santiago Reyes, Electrical Engineering & Computer Science, 2018
Yaseen Alkhafaji, Electrical Engineering & Computer Science, 2018
Katherine Paseman, Mechanical Engineering, 2017 – 2018
Patricia Lu, Electrical Engineering & Computer Science, 2017
Sophia Struckman, Electrical Engineering & Computer Science, 2017
Rod Bayliss, Electrical Engineering & Computer Science, 2017
Robert Henning, Electrical Engineering & Computer Science, 2016 – 2017
Claudia Chen, Mechanical Engineering, 2016 – 2017
Amber Guo, Electrical Engineering & Computer Science, 2016
Karina Hinojosa, Environmental Sciences, 2016
Jose Soto Rivera, Mechanical Engineering, 2016
Phoebe Cai, Mathematics, Economics, 2015 – 2016
Dayanna A Espinoza Silva, Electrical Engineering & Computer Science, 2014
Kristin Zimmerman, Mechanical Engineering, 2014

Other institutions
Xavier Mojica, Church Farm High School, GreenRoots (co-mentor), 2018
Michael Still, Medical Anthropology (MS), Boston University (co-mentor), 2018
Susan Seijo Mendez, Mathematics, University of Puerto Rico, 2016

SERVICE

To the university
Member, Faculty search committee, Art + Design, Northeastern University, 2022 – 2023
Speaker, Internal Grant Writing Informational Session, Northeastern University, 2022
Guest critic, Media Arts Degree Project, Northeastern University, 2022
Thesis Reader, Qinzhe Chen, MFA in Experience Design, Northeastern University, 2022
Faculty affiliate, Co-Laboratory for Data Impact, Northeastern University, 2021 –
Faculty co-director, Co-Laboratory for Data Impact, Northeastern University, 2021 – 2022
Member, Faculty search committee, Art + Design, Northeastern University, 2021 – 2022
Member, Art + Design Curriculum Committee, Northeastern University, 2021 –
Interviewer, data visualization positions, Roux Institute, Northeastern University, 2021
Faculty representative, Mosaic advisory board, Northeastern University, 2020 –
Reviewer, portfolios for undergraduate admissions, Northeastern University, 2020 –
Reviewer, Experience Design graduate admissions, Northeastern University, 2020 –

To the discipline
Program committee, Creativity & Cognition, 2021, 2022, 2023
Paper Reviewer, Conference on Human Factors in Computing Systems (CHI), 2022
Paper Reviewer, Designing Interactive Systems (DIS), 2022
Paper Reviewer, Computer Supported Cooperative Work (CSCW), 2022
Paper Reviewer, Tangible, Embedded, and Embodied Interaction (TEI), 2021
Program committee, Information+, 2021
Paper Reviewer, Design and Semantics of Form and Movement (DeSForM), 2019
Paper Reviewer, UbiComp Workshop Session, 2015

To the community
Panelist, "Paving A Way for a Career in Academia During Graduate School," MIT, 2022
Letter writer, Aeronautics professional society scholarship (Mechanical Engineering), 2022
Guest critic, "Data vis for architecture, urbanism & the humanities," Columbia, 2021
Panelist, "How to be a quick start professor" Path of Professorship, MIT, 2021, 2022
Letter writer, graduate school applications (Interaction Design), 2021
Letter writer, graduate school applications (Data Science), 2021
Letter writer, graduate school applications (Mechanical Engineering), 2020
Panelist, Interdisciplinary Research Design for MS Thesis, MIT, 2020
Member, MIT Media Lab Diversity Committee, 2013 – 2019
Guest scientist, Global Challenge, Cambridge Public Schools, 2019
Student representative, Arts at MIT hiring group, 2019
Reviewer, MIT Summer Research Program, MIT, 2018
Guest Critic, "Environment, Technology and Society," Northeastern University, 2016
Guide, Anita Borg Computer Science School Visit Day, MIT, 2016
Reviewer, Maker Portfolios for Undergraduate Admissions, MIT, 2015

Professional development
Fellow, Royal Society of the Arts, 2019 – 2021
Participant, MIT Conflict Management Training, Tiers 1-3, 2015

SELECTED SPEAKING

Panelist, CSCW Conference, 2022
"Self Quaranteens" process COVID-19: understanding information visualization language in memes"

Panel co-moderator, Center for Design, Northeastern University, 2022
"Designing Dance: Embodiment, Ephemerality, and Experience"

Panelist, IEEE Visualization Conference, 2021
"Data Clothing and BigBarChart: Designing Physical Data Reports on Indoor Pollutants for Individuals and Communities."

Lecture, Art at Noon, Delaplaine Arts Center, Frederick, MD, 2021

"Environmental art: approaches and challenges to civic change"

Lecture, Hive Mind at Cantina, Boston, MA, 2021
"Experiencing data together: combining art, technology, and community to create impactful data displays"

Lecture & workshop, Cambridge Science Festival, 2021
"Getting Crafty with Data Science"

Panelist, Center for Design, Northeastern University, 2021
"Embodying Information" in "The Physical Life of Data" (with Rahul Bhargava)

Panelist, College of Arts, Media and Design, Northeastern University, 2021
"Creating & experiencing data together" in "New Faculty Research Overviews"

Presentation, Center for Design, Northeastern University, 2020
"Data Physicalization: current and future research"

Panelist, IEEE Visualization Conference, 2020
"Chemicals in the Creek: designing a situated data physicalization of open government data with the community"

Lecture, College of Communication, Boston University, 2020
"Data visualization for action: community-based physicalization of environmental challenges in context"

Lecture, Computer Science Department, Bowdoin College, 2018
"Beyond awareness: combining art, science, technology, and community to move towards collective action on environmental challenges"