

LOURDES ANNETTE VERA

Department of Sociology and Anthropology
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EDUCATION

2021 (expected) PhD Sociology, Northeastern University

Concentrations: Environment and Health; Sociology of Science, Knowledge, and Technology

Dissertation Title: *Environmental Data Justice in Action: Civically Valid Air Monitoring near Oil and Gas Extraction on the Eagle Ford Shale Play*

Committee: Sara Wylie, Phil Brown, Dietmar Offenhuber, Michelle Murphy (University of Toronto), Chunrong Jia (University of Memphis)

Graduate Certificate in Data Analytics, Northeastern University

2017 MA Sociology, Northeastern University

2014 MA Teaching Science, City University of New York, Brooklyn College

2012 BA Urban Studies, Barnard College at Columbia University
Concentrations: Environmental Science; Anthropology

RESEARCH & TEACHING INTERESTS

Environmental Health and Justice
Critical Race and Ethnic Studies
Science, Technology, and Society

Community-Based Participatory Research
Atmospheric Science
Data Visualization

PUBLICATIONS

Refereed Publications

2020 **Vera, Lourdes**, Garance Malivel, Drew Michanowicz, Choong-Min Kang, and Sara Wylie. "Photopaper as a Tool for Community-level Monitoring of Industrially Produced Hydrogen Sulfide and Corrosion." *Air Sensors International Conference Special Issue. Atmospheric Environment: X* 5:100049.

2019 **Vera, Lourdes**, Dawn Walker, Michelle Murphy, Becky Mansfield, Ladan Mohamed Siad, Jessica Ogden, and the Environmental and Data Governance Initiative. "When Data Justice and Environmental Justice Meet: Formulating a Response to Extractive Logic through Environmental Data Justice." *Data Justice Special Issue. Information, Communication, and Society* 22(7): 1012-1028.

- 2018 **Vera, Lourdes**, Lindsey Dillon, Sara Wylie, Jennifer Liss Ohayon, Aaron Lemelin, Phil Brown, Christopher Sellers, Dawn Walker, and The Environmental Data and Governance Initiative. "Data Resistance: A Social Movement Organizational Autoethnography of the Environmental Data and Governance Initiative." *Protesting Trump Special Issue. Mobilization: An International Quarterly* 23(4): 511-529.
- 2017 Wylie, Sara, Elisabeth Wilder, **Lourdes Vera**, Deborah Thomas, Megan McLaughlin. "Materializing Exposure: Developing Methods for Visualizing Environmental Hazards of Unconventional Energy." *Engaging Science, Technology, and Society* no. 3: 426-463.

Manuscripts in Preparation

Garance Malivel, **Lourdes Vera**, and Sara Wylie. Addressing Community-Level Exposure to Industrial Hydrogen Sulfide through an Accessible Participatory Air Monitoring Method and the Production of 'Operative Data.' In preparation for submission to *Social Studies of Science*.

Vera, Lourdes. Embodied Data Movement Challenges to Extractive Genomic Research. In preparation for submission to *Science, Technology, and Human Values*.

Other Publications

- In Press **Vera, Lourdes**. "Imagining Alternative Politics of Experimentation and Resistance with Michelle Murphy's *The Economization of Life*." Review of *The Economization of Life* by Michelle Murphy. Ludwick Fleck Prize Book Forum. Somatosphere: Science, Medicine, and Anthropology. www.somatosphere.net.
- 2020 Nost, Eric, Sara Wylie, Kelsey Breseman, Gretchen Gehrke, Chris Sellers, **Lourdes Vera**, Lauren Richter, Becky Mansfield, and the Environmental Data and Governance Initiative (EDGI). "A Green New Deal for Environmental Data." *A People's Green New Deal, Science for the People* Vol. 23 No. 2
- 2020 Nost, Eric, Kelsey Breseman, Steve Hansen, Leslie Alanis, Megan Raisle, **Lourdes Vera**, Maalvika Bhat, Sara Wylie, Sung-Gheel (Gil) Jang, and EDGI. "More Permission to Pollute: The Decline of EPA Enforcement and Industry Compliance during COVID." Blog Post. The Environmental Data and Governance Initiative. <https://envirodatagov.org/more-permission-to-pollute-the-decline-of-epa-enforcement-and-industry-compliance-during-covid/>.
- 2020 Breseman, Kelsey, Eric Nost, Gretchen Gehrke, Chris Sellers, Marcy Beck, **Lourdes Vera**, EDGI. "EPA's COVID-19 Leniency is a Free Pass to Pollute." Blog Post. The Environmental Data and Governance Initiative. <https://envirodatagov.org/epas-covid-19-leniency-is-a-free-pass-to-pollute/>.
- 2018 Mansfield, Becky, Gretchen Gehrke, Andrea Hindman, Leif Fredrickson, **Lourdes Vera**, Jess Ogden, and Dawn Walker. 2018. "EPA's Proposed Rule Uses the Idea of Transparency to Reduce Real Transparency and Delay Protecting Environmental and

Public Health.” Public Comment.

<https://envirodatagov.org/wp-content/uploads/2018/09/Strengthening-Transparency-in-Regulatory-Science.pdf>.

- 2017 Villa, Priscilla, **Lourdes Vera**, Sara Wylie, and Sharon Wilson. “Hazards in the Air: Relating reported illnesses to air pollutants detected near oil and gas operations in and around Karnes County, Texas.” Earthworks’ Oil Gas Accountability Project.
- 2017 Villa, Priscilla, **Lourdes Vera**, Sara Wylie, and Sharon Wilson. “Peligros en el Aire: Relacionando enfermedades reportadas a los contaminantes del aire detectados cerca de las operaciones de petróleo y gas dentro y alrededor del Condado de Karnes, Texas.” Earthworks’ Oil Gas Accountability Project.
- 2016 **Vera, Lourdes**. "Community Health Impacts from Oil and Gas Development in Texas: The Perspective of Sharon Wilson." SSEHRI Special Issue. *New Solutions: A Journal of Environmental and Occupational Health Policy* 26(3): 496-507.

AWARDS

- 2019 Outstanding Research Paper Award, Northeastern University Department of Sociology and Anthropology.
- 2018 Outstanding Contributions to Public Sociology Award, Northeastern University Department of Sociology and Anthropology.
- 2017 Distinguished Contributions to Making and Doing: "Environmental Data and Governance Initiative (EDGI): Engaged STS Responding to the U.S. Administration" Society for Social Studies of Science.

GRANTS AND FELLOWSHIPS

- 2020 Experiential PhD Fellowship, Northeastern University College of Social Sciences and Humanities. Sponsoring Organization: Earthworks’ Oil and Gas Accountability Project.
- 2019 Research Development Initiative Grant. Co-PI, Sara Wylie. Northeastern University College of Social Sciences and Humanities, \$5,000.
- 2019 Robert Patricia Switzer Foundation Environmental Fellow, \$15,000.
- 2016 National Institute of Environmental Health Sciences (NIEHS) T-32 Training Program (3 years).
- 2015 Northeastern University Distinguished Dean’s Fellowship (5 years)
- 2012 AmeriCorps Grantee, \$5,000
- 2012 New York City Teaching Fellows Cohort 23

PRESENTATIONS

Invited Presentations

- 2020 “Storytelling for Advocacy: Tools for Uncovering Scientific Meaning and Purpose” with Leslie Alanis. Reclaiming STEM 2020 Workshop.
- 2020 Panelist at Planet Texas 2050 Resilience Roundtable. The University of Texas at Austin. Virtual. July 21.
- 2020 “Race & Equity Discussion Group: Environmental Data Justice with Lourdes Vera.” The Switzer Foundation. Virtual. June 15.
- 2019 Invited Discussant for Author Meets Critics: Fleck Prize for *The Economization of Life* by Michelle Murphy. Society for Social Studies of Science Annual Meeting, Boston, MA. August 30 – September 2.
- 2018 “Building a Sentinel Community in Response to Hazards from Oil and Gas Development in Karnes, Texas,” Human Challenges in Extreme Environments. Hosted by iGlobes: Interdisciplinary and Global Environmental Studies and the Udall Center for Studies in Public Policy. University of Arizona. November 18.
- 2016 “D.I.Y Visualization of Exposure to Hydrogen Sulfide” Indexical Design Symposium, Northeastern University. June 25.
- 2016 “Visualizing Thermal Plumes with Thermal Fishing Bobs” Civic Art Lightning Talk, Technology, Design & Social Impact Conference, Boston Civic Media Consortium, Microsoft NERD at MIT. June 10.

Conference Activity

- 2020 “Engaging Environmental Data Justice to Conduct Civically Valid Air Monitoring with Oil & Gas Fenceline Communities.” Panel on Ways of Knowing the Digital Anthropocene (Sensing and Seeing), Society for the Social Studies of Science Annual Meeting, Virtual, Prague. August 18-21.
- 2019 “Responding to the Violent and Extractive Logic of Data Mining with Environmental Data Justice.” Society for the Social Studies of Science Annual Meeting, New Orleans, LA. September 4-7.
- 2019 “Citizen Science as/in Public Works: How Validating a Low Cost Air Monitoring Tool in a Sewage Treatment Plant Transformed its Metrics and Impact” (non-presenter). With Garance Malivel and Sara Wylie. Society for the Social Studies of Science Annual Meeting, New Orleans, LA. September 4-7.
- 2019 “When Data Justice and Environmental Justice Meet: Formulating a Response to Extractive Logic through Environmental Data Justice.” With Dawn Walker, Michelle Murphy, Becky Mansfield, Ladan Mohamed Siad, and Jessica Ogden. American Sociological Association Annual Meeting, New York City, NY. August 10-13.

- 2018 “Photographic Paper: an Integrated Measure for Community Study of Industrially Produced Corrosive Gases?” Poster Session at Air Sensors International Conference, UC Davis. September 12-14.
- 2018 “Towards an Environmental Data Justice Framework.” With Dawn Walker. Data Justice Conference, Data Justice Lab, Cardiff University. May 21-22.
- 2017 “Using Indexical Design and Counter-Mapping to Collaboratively Ground the Hazards of Oil and Gas Extraction.” Panel on Tensions and Challenges for Environmental Citizen Science II: Expertise and the State. Society for Social Studies of Science Annual Meeting, Boston, MA. August 30 – September 2.

Workshops and Guest Lectures

- 2017 Materializing Exposure: Developing Methods for Visualizing Environmental Hazards of Unconventional Energy and Engaged STS Research. STS Underground: Investigating the Technoscientific Worlds of Mining and Subterranean Extraction. Colorado School of Mines, Sponsored by the National Science Foundation. February 5-6.
- 2017 Materializing Exposure: Developing Methods for Visualizing Environmental Hazards of Unconventional Energy and Engaged STS Research. Impossible to Simply Continue Along Previous Lines: Changing Life in Times of Crisis, New England Workshop on Science and Social Change. Organized by Peter Taylor, University of Massachusetts Boston. August 9.
- 2017 “Environmental Data Justice,” in undergraduate course *Environmental Justice*, taught by Professor Phil Brown at Northeastern University.
- 2017 “Proactive Data Monitoring and Archiving with the Environmental Data and Governance Initiative (EDGI)” in graduate course *Storing, Collecting, and Retrieving Data*, taught by Professor Sara Arunagiri at Northeastern University.
- 2017 “Working with Marginalized Communities” in undergraduate course *Environmental Justice*, taught by Professor Phil Brown at Northeastern University.
- 2017 “Climate Change and Violence” in undergraduate course *Violence and Society*, taught by Professor Sylvia Dominguez at Northeastern University.
- 2017 “Air Pollution” in MPH course *Environmental Health*, taught by Professor Sharon Harlan at Northeastern University.
- 2016 “Civic Technoscience in STS and Environmental Health” in DrPH course *Paradigms of Social Science* taught by Bridget Hanna at T.H. Chan Harvard School of Public Health.
- 2016 Santo Domingo Housing and Health Workshop hosted by T.H. Chan Harvard School of Public Health and JPB Foundation. Santo Domingo Pueblo, NM. May 22-24.

Campus Talks

- 2019 Invited Participant. Graduate Student Fellowships Panel. College of Social Sciences and Humanities, Northeastern University.
- 2017 Organizer and Moderator. “The Dissertation from Pre-Proposal to Post-Defense” Professional Development Workshop, Department of Sociology and Anthropology, Northeastern University.
- 2016 Organizer and Presenter. “D.I.Y. Visualization of Toxic Exposures” Student Panel on Summer Research, Department of Sociology and Anthropology, Northeastern University.

RESEARCH EXPERIENCE

- 2016- present **Environmental Data & Governance Initiative**
Coordinating committee member and part of the communications team.
Member of the Environmental Data Justice working group, theorizing and envisioning infrastructures for environmental data.
- 2015 - present **Wylie Lab and Social Science Environmental Health Research Institute (SSEHRI)**, Northeastern University
A lead graduate researcher, I collaborate with community members, scientists, and organizers in designing scientific research procedures to develop and implement tools that measure air pollutants surrounding oil and gas facilities.
- 2017-2018 **Silent Spring Institute**
Mapped and spatially analyzed differences in contaminant levels between unincorporated and incorporated community water systems within the U.S.
- 2013-2014 **Brooklyn College Research Experience for Teachers**
Designed and implemented study on phytoplankton diversity in Prospect Park Lake. Assisted graduate and undergraduate biology students with lab research and fieldwork.

DEPARTMENT AND PROFESSIONAL SERVICE

Reviewer

The Society for the Study of Social Problems; Information, Communication, and Society

Committees

- 2020-Present Graduate Student Representative for the Section on Environmental Sociology, American Sociological Association
- 2018 - 2019 Committee on Graduate Study, Northeastern University Department of Sociology.

2016-2018 Intellectual Events Committee, Northeastern University Department of Sociology.

COMMUNITY INVOLVEMENT

- 2019 Discussant. “EJx Youth Summit,” hosted by GreenRoots’ Environmental Chelsea Organizers and the Environmental Data & Governance Initiative Environmental Data Justice working group.
- 2019 Co-organizer and moderator. “Environmental Data Justice: Vision and Values,” hosted by the Environmental Data & Governance Initiative Environmental Data Justice working group. February 28.
- 2019 Volunteer. “Chemicals in the Creek” Data visualization performance and collaboration between MIT Media Lab, Northeastern University, and Chelsea GreenRoots. April 22.
- 2017 Volunteer. “Enacting Environmental Data Justice: A 4S Pre-Meeting Event” hosted by the Environmental Data & Governance Initiative. Northeastern University.
- 2017 Volunteer and co-organizer. Data Rescue Boston at Northeastern University, hosted by the Environmental Data and Governance Initiative and DataRefuge.
- 2017 Volunteer. Data Rescue Boston at MIT, hosted by the Environmental Data and Governance Initiative and DataRefuge.

PROFESSIONAL EXPERIENCE

2012-2015 **9th-12th Grade Science Teacher**
Brooklyn Theatre Arts High School, Brooklyn, NY.
Earth Science, Chemistry, AP Environmental Science, Science Department Chair, Sustainability Coordinator.

MEDIA COVERAGE

“Residentes Del Sur de Texas Afectados Por Gases de Plantas de Petróleo y Gas.” *Noticias Telemundo*. February 12, 2018.
<https://www.telemundo.com/noticias/2018/02/01/residentes-del-sur-de-texas-afectados-por-gases-de-plantas-de-petroleo-y-gas-tmvo8588181>.

Cribb, Robert, Patti Sonntag, P.W. Elliott, and Elizabeth McSheffrey. “That Rotten Stench in the Air? It’s the Smell of Deadly Gas and Secrecy.” *The Toronto Star*. October 1, 2017.
<https://www.thestar.com/news/canada/2017/10/01/that-rotten-stench-in-the-air-its-the-smell-of-deadly-gas-and-secrecy.html>.

Cribb, Robert, Patti Sonntag, P.W. Elliott, and Elizabeth McSheffrey. “Is Saskatchewan Ignoring

the Potentially Deadly Gas from Oil Wells?" *Global News*. October 2, 2017.
<https://globalnews.ca/news/3781309/saskatchewan-deadly-gas-government-oversight/>.

RELATED PROFESSIONAL SKILLS

Languages

Spanish (Conversational, Proficient in Reading and Writing)

Software and Programming Languages

Proficient: R, ESRI ArcMap and ArcGIS Online, QGIS, Adobe Creative Suite, WordPress

Basic: HTML5, CSS, SPSS, and SQL

PROFESSIONAL MEMBERSHIPS

Society for Social Studies of Science (4S)

American Sociological Association (ASA)

American Association of Geographers (AAG)