EMANUEL MOSS, PhD.

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APPOINTMENTS

Research Scientist - Sociotechnical Systems, Intel Labs, 2022-present

Joint Postdoctoral Research Fellow, Digital Life Initiative at Cornell Tech and Data & Society Research Institute, 2021-2022

Researcher, Data & Society Research Institute, 2018-2021

EDUCATION

CUNY Graduate Center – PhD., Anthropology

Dissertation: "The Objective Function: Science and Society in the Age of Machine Intelligence". Committee: Karen Strassler, PhD. (chair), Dana-Ain Davis, PhD., Mandana Limbert, PhD., danah boyd, PhD.

Brandeis University - M.A., Global Studies

Thesis: "Monumental Identities: Nationalism, Globalization and the Monumentalization of Heritage"

Advisor: Chandler Rosenberger, PhD.

University of Illinois at Urbana-Champaign – B.A., Anthropology

ADDITIONAL POSITIONS HELD

2022 – present	Member, Expert Group on Responsible Al Management, Program on Data and
	Governance at Ohio State University Moritz School of Law
2019 – 2022	Expert Consultant, Ethical Resolve LLC.
2016 – 2018	Research Analyst, Data & Society (Partnership on AI, PERVADE)
2017 – 2018	Applied Data Science Writing Fellow at Cloudera Fast Forward Labs
2015 – 2017	Art Editor, Journal of Field Archaeology
2014 – 2017	Teaching Fellow, Baruch College (CUNY), Department of Sociology and Anthropology
2013 – 2016	Spatial Data and Digital Technologies Specialist, Gygaia Projects, Boston University
2004 – 2008	Staff Archaeologist, ARCADIS NV

FELLOWSHIPS and AWARDS

2023	Research Grant, ND/IBM Date Ethics Lab
2022	Research Fellowship, Siegel Family Endowment (declined)
2018	Dissertation Fieldwork Grant, Wenner Gren Foundation
2016	Early Research Initiative Pre-Dissertation Fellowship, CUNY Graduate Center
2015	Advanced Research Collaborative Student Fellow, CUNY Graduate Center
2014	Graduate Student Paper Prize Finalist, Society for the Anthropology of Europe
2013 – 2015	Graduate Center Fellowship, CUNY Graduate Center
2012	Global Studies Travel Grant, Brandeis University
2011 – 2012	Graduate Fellowship, Brandeis University
2011	Center for German and European Studies Travel Grant, Brandeis University

PUBLICATIONS and OTHER WRITING

- * peer reviewed or juried submission
- **Moss, E.** (2023). "Trust Is Not Enough: Accuracy, Error, Randomness, and Accountability in an Algorithmic Society." *ACM Communications* 66(6), pp. 42-44. https://dl.acm.org/doi/abs/10.1145/3565479.
- *Sloane, M., Moss, E., Awomolo, O., Forlano, L. (2022). "Participation Is not a Design Fix for Machine Learning." In *Proceedings of the ACM Conference on Equity and Access in Algorithms, Mechanisms, and Optimization (EAAMO'22)*. Association of Computing Machines. Washington, DC. https://dl.acm.org/doi/abs/10.1145/3551624.3555285.
- *Adler, D.A., Tseng, E. Moon, K.C., Young, J.Q., Kane, J.M., **Moss, E.**, Mohr, D.C., Choudhury, T. (2022). "Burnout and the Quantified Workplace: Tensions around Personal Sensing Interventions for Stress in Resident Physicians." In *Proceedings of the ACM Conference on Human-Computer Interaction* (CHI'22). Association of Computing Machines. https://dl.acm.org/doi/abs/10.1145/3555531.
- *Oduro, S., **Moss, E.,** Metcalf, J. (2022). "Obligations to Assess: Recent Trends in AI Accountability Regulations." *Patterns 3*(11). https://www.sciencedirect.com/science/article/pii/S2666389922002331.
- Sloane, M., **Moss, E.** (2022). "Introducing a Practice-Based Compliance Framework (PCF) for Addressing New Regulatory Challenges in the AI Field." *TechREG Chronicle*, March. https://www.competitionpolicyinternational.com/introducing-a-practice-based-compliance-framework-pcf-for-addressing-new-regulatory-challenges-in-the-ai-field/.
- Metcalf, J., **Moss, E.**, Singh, R., Tafese, E., Watkins, E. (2022). "A relationship and not a thing: A relational approach to algorithmic accountability and assessment documentation." *ArXiv:2203.01455 [Cs]*, March. http://arxiv.org/abs/2203.01455.
- *Cooper, A.F., Laufer, B., Moss, E., Nissenbaum, H. (2022). "Accountability in an Algorithmic Society: Relationality, Responsibility, and Robustness in Machine Learning." In 2022 ACM Conference on Fairness, Accountability, and Transparency in Computer Science. Association of Computing Machines. Seoul, South Korea. https://dl.acm.org/doi/fullHtml/10.1145/3531146.3533150
- *Sloane, M., **Moss, E.**, Chowdhury, R. (2022). "A Silicon Valley love triangle: Hiring algorithms, pseudoscience, and the quest for auditability." *Patterns, 3(2)*. https://www.cell.com/patterns/fulltext/S2666-3899(21)00308-1.
- Metcalf, J., Smith, B., **Moss, E.** (2022). "A New Proposed Law Could Actually Hold Big Tech Accountable for Its Algorithms." *Slate Future Tense*. https://slate.com/technology/2022/02/algorithmic-accountability-act-wyden.html.
- *Ganesh, M.I., **Moss, E.** (2022). "Resistance and refusal to algorithmic harms: Varieties of 'knowledge projects'." *Media International Australia, 182(2)*. http://journals.sagepub.com/doi/10.1177/1329878X221076288.
- Fannuci, F., Wisniak, M., Skoric, V., Smith, B., Oduro, S., Metcalf, J., **Moss, E.**, and Tafese. E. (2021). "Recommendations for Assessing Al Impacts to Human Rights, Democracy, and the Rule of Law."

- European Center for Non-profit Law. https://ecnl.org/publications/recommendations-incorporating-human-rights-ai-impact-assessments.
- *Shilton, K., Moss, E., Gilbert, S. A., Bietz, M. J., Fiesler, C., Metcalf, J., Vitak, J., & Zimmer, M. (2021). Excavating awareness and power in data science: A manifesto for trustworthy pervasive data research. *Big Data & Society*, 8(2). https://doi.org/10.1177/20539517211040759.
- Moss, E., Watkins, E.A., Singh, R., Metcalf, J. 2021. Assembling Accountability: Algorithmic Impact Assessment for the Public Interest. Data & Society Research Institute Report.

 https://datasociety.net/library/assembling-accountability-algorithmic-impact-assessment-for-the-public-interest/.
- *Watkins, E.A., **Moss, E.**, Metcalf, J., Singh, R., Elish, M.C. 2021. "Governing Algorithmic Systems with Impact Assessments: Six Observations." In *Proceedings of the 2021 AAAI Conference on AI, Ethics, & Society (AIES2021)*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3846300.
- Sloane, M., Moss, E., Chowdhury, R. 2021. "A Silicon Valley Love Triangle: Hiring Algorithms, Pseudo-Science, and the Quest for Auditability." In CHI '21: ACM CHI Virtual Conference on Human Factors in Computing Systems, May 8-13, 2021, Yokohama, JN. ACM, New York, NY, USA.
- *Metcalf, J., **Moss, E.**, Watkins, E.A., Singh, R., Elisch, M.C. 2021. "Algorithmic Impact Assessments and Accountability: The Co-construction of Impacts". In *FAccT '21: Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*. pp. 735-746. Toronto, ON. https://doi.org/10.1145/3442188.3445935.
- **Moss, E.** 2021. Review of "Technologies of Speculation: The Limits of Knowledge in a Data-Driven Society," *Journal of Cultural Economy*, 14(3). https://doi.org/10.1080/17530350.2021.1882539.
- *Moss, E. and Metcalf, J. 2020. "High Tech, High Risk: Tech Ethics Lessons for the COVID-19 Pandemic Response". *Patterns*, 1(7). https://www.cell.com/patterns/fulltext/S2666-3899(20)30136-7.
- Metcalf, J. and Moss, E. 2020. "Looking for Race in Tech Company Ethics". Data & Society Points Blog.
- Sloane, M. **Moss, E.**, Awomolo, O., and Forlano, L. 2020. "Participation is not a Design Fix for Machine Learning". Participatory Approaches to Machine Learning Workshop of the 37th International Conference of Machine Learning. Vienna, Austria.
- Moss, E. and Metcalf, J. 2020. "Too Big a Word". Data & Society Points Blog.
- Kaeser-Chen, C., Dubois, E., Schüür, F., and **Moss, E.** 2020. Positionality-aware machine learning: translation tutorial. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency (FAT* '20)*. Association for Computing Machinery, New York, NY.
- **Moss, E.** and Metcalf, J. 2020. *Ethics Owners: A New Model of Organizational Responsibility in Data-Driven Technology Companies*. Data & Society Research Institute Report. https://datasociety.net/pubs/Ethics-Owners.pdf.
- **Moss, E.** and Metcalf, J. 2019. <u>The Ethical Dilemma at the Heart of Big Tech Companies</u>. *Harvard Business Review*, 14 November 2019.

- Kroll, J. and **Moss, E.** 2019. *Conceptions, Definitions, and Practices of Fair, Transparent, and Accountable (FTA) AI.* Partnership for AI. Whitepaper. (forthcoming)
- *Sloane, M. and **Moss, E.** 2019. Al's Social (Science) Deficit Has Consequences. *Nature Machine Intelligence*, 1(8).
- *Metcalf, J., **Moss, E.**, boyd, d. 2019. Owning Ethics: Corporate Logics, Silicon Valley, and the Institutionalization of Ethics. *Social Research*, 86(2).
- *Moss, E. and Schuur, F. 2018. How Modes of Myth-Making Affect the Particulars of DS/ML Adoption in Industry. Proceedings of the *Ethnographic Praxis in Industry Conference 2018*. Honolulu, HI.

Fast Forward Labs. 2018. Multi-Task Learning. Research Report FF08. (Ch. 6 – Ethics)

Fast Forward Labs. 2017. Interpretability. Research Report FF07. (Ch. 6 – Ethics)

Luke, C. and Moss, E. 2016. Editorial. Journal of Field Archaeology, 41(5).

*Roosevelt, C.H., Cobb, P., **Moss, E.** Olsen, B.R., Ulusoy, S. 2015. Excavation is Destruction Digitization: Advances in Archaeological Practice. *Journal of Field Archaeology, 40*(3).

TEACHING EXPERIENCE

INSTRUCTOR

2022 Cornell Tech

Values at Play (TECH 5010)

2021 University of California-Berkeley

Behind the Data: Humans and Values (MIDS w231)

2014 – 2017 Baruch College

Introduction to Anthropology (ANT 1001)

TEACHING ASSISTANT

2013 Massachusetts Institute of Technology

Anthropology 21A.00: Introduction to Anthropology (with Prof. Graham Jones)

2011 – 2012 Brandeis University

Anthropology 1A: Introduction to the Comparative Study of Human Society

(with Prof. Sarah Lamb, Prof. Jonathan Anjaria)

International and Global Studies 10A: Introduction to International and Global Studies

(with Prof. Kerry Chase)

GUEST LECTURER

2022	Cambridge University – Guest speaker on AI Ethics and Society
2021	Cold Spring Harbor Laboratory – Invited Lecture on AI Ethics
2021	NYU Center for Urban Science and Progress – Capstone Lecture on Data Research Ethics
2021	NYU AI & Society – Lecture on Ethics in Industry

PRESENTATIONS, CONFERENCE ACTIVITIES and INTERVIEWS

2022 "Trustworthiness in Social Data Science: Excavating Awareness and Power". Invited presentation to the UW Data Science Seminar (co-presented with Katie Shilton). University of Maryland Social Data Symposium. February 9, 2022. 2021 "Engaging the Ethics of Public Data' in Social Media Research" Tutorial. (co-presented with Casey Fiesler, Katie Shilton, Michael Zimmer, and Katharina Kinder-Kurlanda). ICWSM 2021. 2021 "So You Want to Be a Tech Ethicist (No Scrubs edition)" (co-presented with Jacob Metcalf). MozFest 2021. 2020 "Corporate Logics of Silicon Valley and the Institutionalization of Ethics" (co-presented with Jacob Metcalf). Invited talk at 2020 American Sociological Association Annual Meeting. San Francisco, CA. 2020 NPR Marketplace Tech: "Tech companies should make it someone's job to think about ethics". Aired on July 6, 2020. 2020 Stanford Institute for Human-Centered Artificial Intelligence (HAI) Weekly Seminar: "Owning Ethics: Organizational Responsibility and the Institutionalization of Ethics in Silicon Valley" (co-presented with Jacob Metcalf). Palo Alto, CA [webcast]. 2020 Discussant for Data & Society Workshop: Contested Data. New York City, NY. 2020 "Positionality-Aware Machine Learning: Translation Tutorial" (co-presenter). 2020 ACM Conference on Fairness, Accountability, and Transparency (ACM FAT*). Barcelona, ES. 2019 "Minding the Gap: Between Fairness and Ethics" Workshop (co-organizer and moderator). 2019 2019 NeurIPS Conference. Vancouver, BC. "Tutorial: Ethics in Data-Driven Industries" (co-presented with Friederike Schüür). 2019 2019 Ethnographic Praxis in Industry Conference. Providence, RI. 2019 "Lightning Talk: Ethical AI Starts with the Data" (co-presented with Michael Zimmer). Good Systems: Ethical AI for CSCW Workshop. 22nd ACM Conference on Computer-Supported Cooperative Work and Social Computing. Austin, TX. 2019 "Assessing Algorithmic Impacts" (co-presented with Jacob Metcalf) at REAL ML: Research, Engagement, Advocacy and Lived Experiences with Machine Learning Systems Workshop. Berlin, DE. 2019 "Becoming FAT: The Formation of Algorithmic Fairness, Accountability, and Transparency". Annual Meeting of the Society for the Social Studies of Science. New Orleans, LA. 2019 STS Summer School: Expertise, Trust, and Democracy. Harvard University. Cambridge, MA. 2019 Discussant for Data & Society Workshop: Lessons from the Field. New York City, NY. 2019 "Owning Ethics: Doing ethics inside a tech company" (co-presented with Jacob Metcalf). Strata Data Ethics Summit. San Francisco, CA.

2019	"Tutorial: Toward a Theory of Race for Fairness in Machine Learning," 2019 FAT* Conference. Atlanta, GA. [webcast]
2018	"Deep Learning and Shallow Play: New Essentialisms in the Machine Age" (coauthored with Lily Hu). Annual Meeting of the American Anthropological Association. San Jose, CA.
2018	"How Modes of Myth-Making Affect the Particulars of DS/ML Adoption in Industry" (coauthored with Friederike Schüür) 2018 Ethnographic Praxis in Industry Conference. Honolulu, HI.
2018	<u>Computational Social Science Summer School</u> . University of Southern California. Los Angeles, CA
2018	<u>Technology, Law & Society Summer Institute</u> . University of California. Irvine, CA.
2018	"Digital Technology, Digital Practices: Incorporating Digital Techniques into Archaeological Excavation and Interpretation". Annual Meeting of the Society for American Archaeology. Washington, DC.
2018	"Addressing Conceptual Gaps in Big Data Research Ethics," PRISMA Ethics & Innovation Conference, Warwick University, UK.
2017	Discussant for Data & Society Workshop: Lessons from the Field. New York City, NY.
2017	"Personal Information as Private Property: Proprietary Datasets in the Information Age," American Ethnological Society Annual Meeting. Stanford University. Palo Alto, CA.
2015	"Thick Traces: Three-Dimensional Modeling in Archaeology," Annual Meeting of the Society for Social Studies of Science. Denver, CO.
2015	"Digital Imaging and Spatial Analysis in Archaeology: Problems and Prospects," (coauthored with Brandon Olsen). Mobilizing the Past for a Digital Future Workshop, Wentworth Institute of Technology. Boston, MA.

ACADEMIC SERVICE

PEER REVIEW

2023	Program Committee member for ACM AIES Conference
2022 – 2023	Program Committee member for ACM FAccT Conference
2021 - 2022	Reviewer for ACM CHI Conference.
2021	Area Chair for NeurIPS 2021: Datasets and Benchmarks Track
2020	Reviewer for ACM Communications
2020 – 2021	Reviewer for Patterns Journal
2020	Reviewer for Manning Publications
2020	Reviewer for <i>Frontiers in Big Data</i>
2019	Reviewer for Journal of the Association for Information Science and Technology
2019	Reviewer for Engaging Science, Technology, and Society
2019	Reviewer for Designing Interactive Systems (DIS) Conference
2015 – 2016	Reviewer for Journal of Field Archaeology

INFORMAL CONSULTATION

- Ada Lovelace Research Institute
- Responsible Innovation Team Facebook
- Queer in AI Bias bounties initiative
- Al Ethics Team Google Research
- ACM US Technology Policy Council
- The Office of Senator Amy Klobuchar
- National Institute of Standards and Technology (NIST) Identifying and Managing Bias in Artificial Intelligence (NIST Special Publication 1270)
- IEEE P3119 Working Group