

Crystal Lee

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Updated June 2023

Appointments

- July 2023– **Assistant Professor**, Computational Media and Design, MIT
Joint appointment in the Schwarzman College of Computing and Comparative Media Studies / Writing
KDD Career Development Professor in Communications and Technology (2023–2026)
- 2022– **Faculty Associate**, Berkman Klein Center for Internet and Society, Harvard University
Co-lead, Ethical Tech Working Group. Former Fellow (2020–2021) and Affiliate (2021–2022).
- 2022– **Senior Fellow**, Responsible Computing, Mozilla
- 2022–2023 **Postdoctoral Associate**, Schwarzman College of Computing, MIT
- 2018 **Visiting Scientist**, Joint Research Center (Italy), European Commission

Education

- 2022 **PhD**, Massachusetts Institute of Technology
History, Anthropology, Science, Technology, and Society (HASTS)
Visualization Group, Computer Science and Artificial Intelligence Laboratory (CSAIL)
- 2016 **MA**, *History of Science*, Stanford University
- 2015 **BA (high honors)**, *History of Science*, Stanford University

Research Interests

Data visualization, critical data studies, digital media, science and technology studies, human-computer interaction, disability studies

Selected Fellowships, Grants, and Awards

External awards

- 2022 Honorable Mention, Eurographics Conference on Visualization (EuroVis; top 3 papers)
- 2021 Honorable Mention, Conference on Human Factors in Computing Systems (top 5%)
- 2020 National Science Foundation Dissertation Improvement Grant [#1941577](#) (\$18,825)
Social Science Research Council (SSRC) [Social Data Dissertation Fellowship](#) (\$15,000)
- 2017 Digital Humanities Summer Institute Scholarship, University of Victoria

Internal awards

- 2021 MIT Undergraduate Experiential Learning Opportunity Grant (\$15,680)
T.S. Lin Fellowship, MIT
Outstanding UROP Mentorship Award, MIT
MIT Schwarzman College of Computing Grant (\$10,188)
MIT Digital Humanities Summer Graduate Fellowship
- 2016 MIT Presidential Fellowship
Lane Research Grant in the History of Science, Stanford University

Peer-Reviewed Publications

- 2023 Gracen Brilmyer* and **Crystal Lee***. “[Terms of use: Crip legibility in information systems](#),” *First Monday* (January 2023).
- 2022 Jonathan Zong*, **Crystal Lee***, Alan Lundgard*, JiWoong Jang, Daniel Hajas, Arvind Satyanarayan. “[Rich Screen Reader Experiences for Accessible Data Visualization](#),” *Eurographics Conference on Visualization* (May 2022). 🏆 *Honorable Mention*.
- 2021 Jamie Wong*, **Crystal Lee***, Vesper Long*, Di Wu*, Graham Jones*. “[Let’s Go, Baby Forklift: The Power of Cuteness and the Cuteness of Power on Chinese Social Media](#),” *Social Media + Society* (April 2021).
- 2021 **Crystal Lee**, Tanya Yang, Gabrielle Inchoco, Graham M. Jones, and Arvind Satyanarayan, “[Viral Visualizations: How Coronavirus Skeptics Use Orthodox Data Practices to Promote Unorthodox Science Online](#),” *ACM Human Factors in Computing Systems (CHI)*, 2021. [video] 🏆 *Honorable Mention*.
- 2019 Alan Lundgard*, **Crystal Lee*** (co-first author), and Arvind Satyanarayan, “[Sociotechnical Considerations for Accessible Visualization Design](#),” *IEEE Transactions on Visualization and Computer Graphics* (October 2019). [video]

Reviews, Essays, and Reports

- 2022 **Crystal Lee**, “Review: A History of Data Visualization and Graphic Communication,” *Information and Culture*, 60.1 (Spring 2022).
- 2021 Jad Esber, Boaz Sender, Ethan Zuckerman, **Crystal Lee**, Nana Nwachukwu, Oumou Ly, Peter Suber, Primavera De Filippi, Sahar Massachi, Samuel Klein, Tom Zick, “[A meta-proposal for Twitter’s bluesky project](#),” March 31, 2021. Social Science Research Network.
- 2019 **Crystal Lee*** and Jonathan Zong*, “[Consent is Not An Ethical Rubber Stamp](#),” *Slate*. August 30, 2019.
- 2018 **Crystal Lee**, “Global Conflict Risk Index Final Consulting Report,” prepared for the Peace and Stability Unit, Joint Research Center, European Commission.
- 2016 **Crystal Lee**, “[Wartime Collaborations in Computing and Intelligence Collection](#),” in Crystal Lee, ed., *Glimpses: British Visions of War and Peace* (exhibit essay collection).

Data Visualization and Museum Projects

- 2021 **Crystal Lee**, Jonathan Zong, Anna Arpaci-Dusseau, Katherine Huang, Mateo Monterde, Ethan Nevidomsky, Tanya Yang, Anna Meurer, Soomin Chun, and Arvind Satyanarayan, [The Data Visualizations Behind Coronavirus Skepticism](#) (interactive digital project).
- 2016 **Crystal Lee***, Murphy Temple*, Meade Klingensmith*, Holly Dayton*, [Glimpses: British Visions of War and Peace](#) (museum exhibition), Stanford University.

Keynotes

- May 2022 “On Data Justice and Accessible Systems.” Keynote Address, Code4Lib (May 24, 2022).

Invited Seminar Talks

- May 2023 “Who’s Responsible for Responsible Tech?” University at Buffalo, Computer Science and Engineering Seminar (May 8, 2023).
- July 2021 “[Viral Visualizations: How Coronavirus Skeptics Use Orthodox Data Practices to Promote Unorthodox Science Online](#).” DUB Shorts, University of Washington (July 14, 2021).

- May 2021 [“Academic Ableism and New Paradigms for Design.”](#) The Science Speak-Easy, University of Colorado-Boulder (May 17, 2021).
- March 2021 [“Visualizing Misinformation: Digital Ethnography and Computational Methods in a Pandemic.”](#) MIT Digital Humanities Speaker Series (March 18, 2021).
- Feb 2021 [“Beyond Visualization: Technoableism and New Paradigms for Design.”](#) *Reimagining Access: Inclusive Technology Design for Archives and Special Collections*, ArtCenter College of Design (February 11, 2021).
- Nov 2020 [“The Promises and Perils of Data Visualization,”](#) Tufts STS Seminar, Tufts University (November 13, 2020).
- Oct 2020 [“Learning from COVID-19 Data Visualizations.”](#) Berkman Klein Center for Internet and Society, Harvard University (October 28, 2020).
- April 2017 [“Lining Things Up: Mapping Time, Power, and Politics,”](#) *History of Visualization / Visualizations in History*. Center for Science and Society, Columbia University (April 8, 2017).

Invited Academic Roundtables and Panel Discussions

- July 2021 [“Going Viral: How Covid Misinformation Spreads Online”](#) (invited panel with Carl Bergstrom and Chase Small). *Scientists Speak Up*, Stanford University (July 29, 2021).
- June 2021 [“Prototyping AI ethics futures: Rights, access, and refusal”](#) (invited roundtable with Alex Taylor and Mara Mills). JUST AI joint event between Ada Lovelace Institute, British Academy, and the UK Arts and Humanities Research Council (June 23, 2021).
- June 2021 [“Talking About and Thinking with Disability”](#) (invited panel with Cora Olson and Ashley Shew). *STS as Critical Pedagogy*, James Madison University (June 23, 2021).
- April 2021 [“Disability Justice & Crip Technoscience: Racism & Ableism in AI & the Future of Technology”](#) (with Damien Patrick Williams and Lydia X.Z. Brown). Autistic Women and Nonbinary Network Liberating Webinar Series (April 23, 2021).
- Oct 2020 [“Data By Touch,”](#) North American Cartographic Information Society (October 15–16, 2020).

Invited Public Talks

- Oct 2022 Invited commentary, [“The Moderate”](#) (script by Ken Urban), Central Square Theater and Catalyst Collaborative: Science Play Reading Series, Cambridge Science Festival (October 3, 2022).
- June 2021 [“More Data, More Problems: Lessons from the Far Right Internet.”](#) U.S. Department of Health and Human Services (June 10, 2021).
- May 2021 [“Radical Possibilities for Technology”](#) (with Christine McRae and Regan Sommer McCoy). YX Foundation and the Radical AI Podcast (May 18, 2021).

Conference Presentations

- Mar 2023 [“Teaching Responsible Computing in Context: Models, Practices, and Tools,”](#) SIGCSE Technical Symposium on Computer Science Education (with Stacy Doore, Atri Rudra, Omowumi Ogunyemi, Trystan S. Goetze, Mehran Sahami, Thomas Cortina, and Kiran Bhardwaj). Toronto, Canada and online (March 15–18, 2023).
- Dec 2022 [“Everyone Likes Access,”](#) with Michele Friedner, Daniel Greene, Allison Fish, Vijayanka Nair, and Beth Semel. Society for the Social Studies of Science. Cholula, Mexico (December 7–10, 2022).

- July 2022 "Incorporating Ethics into Computer Science Education," with Bobby Schnabel, Kathy Pham, Casey Fiesler, Helena Mentis, and Atri Rudra. Computing Research Association Conference at Snowbird. Snowbird, UT (July 19–21, 2022).
- Oct 2021 "STS as Critical Pedagogy" (roundtable discussion), with Emily York, Anna Geltzer, Michael Klein, Sean Ferguson, Marisa Brandt, Jim Malazita, Matthew Harsh, Shelby Dietz, Matt Wisnioski, Nicole Mogul, Kathryn de Ridder-Vignone, and Lindsay Smith. 4S 2021 (virtual).
- May 2021 "Viral Visualizations: How Coronavirus Skeptics Use Orthodox Data Practices to Promote Unorthodox Science Online." ACM CHI. Yokohama, Japan [virtual] (May 8–13, 2021).
- April 2020 "Multisensory Mapping and Design," American Association for Geographers. Denver, CO (April 6–10, 2020). [cancelled due to COVID-19]
- April 2020 "[Practicing Disability Justice: A Working Group on Bringing Activist Praxis into our Teaching and Research](#)," (with Cynthia Bennett and Joanne Woiak), Society for Disability Studies. Columbus, OH [virtual] (April 3–5, 2020).
- Oct 2019 "[Sociotechnical Considerations for Accessible Visualization Design](#)," (with Alan Lundgard), IEEE VIS 2019. Vancouver, Canada (October 20–25, 2019).
- Nov 2018 "Modeling Flavor," History of Science Society Annual Meeting. Seattle, WA (November 1–4, 2018).
- Nov 2017 "Visualizing Historical Knowledge," History of Science Society Annual Meeting. Toronto, Canada (November 9–11, 2017).
- Nov 2017 Discussant and chair, "Computing and Science: Application and Influences." History of Science Society Annual Meeting. Toronto, Canada (November 9–12, 2017).
- Sep 2017 "History Along a Line: Historical Timelines and the Digital Humanities," Tradition and Transformation. Emmanuel College, University of Cambridge, UK (September 18–20, 2017).
- Nov 2016 "One Nation Under Quantification: Measuring Nazi-ness in post-1945 Germany," History of Science Society Annual Meeting. Atlanta, GA (November 3–6, 2016).
- June 2016 "Joseph Priestley's Charts of History & Biography, Redrawn," Digital Humanities Australasia. University of Tasmania, Hobart, Australia (June 20–23, 2016).
- Mar 2016 "Hidden Narratives: Inventing Universal History in Joseph Priestley's Charts of History & Biography," Columbia History of Science Group Annual Meeting. Friday Harbor Biological Research Station, University of Washington. Friday Harbor, WA (March 11–13, 2016).

Organized Seminars, Panels, & Conferences

- 2021 "Toward Accessible Data Representations workshop," IEEE Visualization (co-organized with Arvind Satyanarayan, Danielle Szafir, Keke Wu, and Alan Lundgard). Speakers: Cynthia Bennett, Chancey Fleet, Zoe Gross, Ariel Schwartz, and Rua Williams.
- 2021 "Subtle CSCW Traits: Tensions Around Identity Formation and Online Activism in the Asian Diaspora" workshop, Computer Supported Cooperative Work (with Calvin Liang, Alexandra To, Emily Tseng, Amy Zhang, Kimberley Allison, Neilly Tan, Ruotong Wang, and Sachin Pendse). [Workshop website](#).
- 2021 Conference Plenary Session: "Making and Doing History: On Non-Traditional Modes of Critical Engagement" roundtable discussion, Society for the History of Technology, New Orleans, LA (with Ranjodh Dhaliwal). [Panel abstract](#).
- 2021 Misinformation Working Group Invited Speaker Series, Harvard University: Gerald Mullally (UK Prime Minister's Office), "G7 Vaccine Confidence Campaign and Research Partnerships"; Yvonne Lee (Facebook), "Misinformation Policy."

- 2019–20 Columbia History of Science Annual Meeting, University of Washington, Friday Harbor Marine Station (program chair with Nathan Kapoor).
- 2018 “Technologies of Taste” panel, History of Science Society, Seattle, WA (with Hannah Leblanc). [Panel abstract](#).
- 2017–18 Cross-STS Seminar Series, Massachusetts Institute of Technology (with Elena Sobrino).
- 2017 Workshop on the History of the Physical Sciences, Princeton University (co-organized with Brad Bolman, Jenne O'Brien, and Michael McGovern).

Workshops

Invited workshops have been denoted with an asterisk.

- 2022 * Data Analysis Donuts: Internal Discussion at ObservableHQ on misinformation.
- 2022 * NSF-funded Workshop on Inclusive and Intersectional Research and Analysis in Engineering and Computer Science (invited participant), Stanford University (August 25–26, 2022).
- 2022 Greater Boston Areas AI Ethics Lightning Round. Ethical Issues in Computing and AI: Research Questions and Pedagogical Strategies, Harvard University (June 1, 2022).
- 2022 * Access Washing in Data Policy and Practice (invited roundtable discussant). Minderoo Centre for Technology and Democracy, University of Cambridge (March 3, 2022).
- 2021 Flash talk, VIS Summer Camp (co-organized by Universities of Florida, Arizona, Utah; Northwestern, Northeastern, and MIT).
- 2021 * “[The Future of the Digital Archive: Data Hoarders and Radical Librarianship](#).” *House/Keeping: Domestic Accumulation, Decluttering, and the Stuff of Kinship in Anthropological Perspective*, Laboratoire d'Anthropologie des Mondes Contemporains, Université libre de Bruxelles (May 31–June 2, 2021).
- 2021 “Methodological Challenges to Studying Online Radicalization” (with John A. Maldonado and Jonas Kaiser). Workshop discussion, Berkman Klein Center for Internet and Society Festival of Ideas (May 7, 2021).
- 2021 ACM FAccT Doctoral Consortium. Virtual conference (March 3–10, 2021).
- 2021 * Discussion on “Viral Visualizations” project. *MIT Data + Feminism Lab* (March 26, 2021); *University of Washington Social Futures Lab* (February 9, 2021).
- 2020 Discussant, “Crippling the History of Computing.” *MIT HASTS Program Seminar*.
- 2018 Discussant, “Searching for Google.” *MIT HASTS*.
- 2017 Discussant, “The Multiple Autonomies of Self-Driving Cars.” *MIT HASTS*.
- 2017 Discussant, “Crafting Nanotechnology for Art and Heritage Conservation.” *MIT HASTS*.
- 2016 “Lining Things Up: Mapping Time, Power, and Politics.” *MIT HASTS*.
- 2016 “Digital Methods in History.” History of Science Workshop, Stanford University.

Research Mentorship

Asterisks denote published student co-author.

- Summer 2023 **Landscape analysis, responsible computing student groups:** Princess Vongchanh (Stanford)
- 2022–2023 **Social and Ethical Responsibilities of Computing (SERC) Scholars:** Designing Participatory AI Systems Reading Group (with Elizabeth Bondi-Kelly)
- Fall 2022 **Harvard Climate Justice Design Fellowship:** Jacqueline Thanh (VAYLA New Orleans)
- Summer 2021 **Accessible Interactions** (published in *EuroVis*): JiWoong Jang* (Carnegie Mellon)

- Spring 2021 **The Social Life of Climate Data**: Casey Hong (MS candidate), Emma Chabane
- Fall 2020 **The Data Visualizations Behind Coronavirus Skepticism** (interactive essay)
 Kat Huang*, Anna Arpacı-Dusseau*, Tanya Yang*, Ethan Nevidomsky*, Anna Meurer*, Soomin Chun*, Mateo Monterde*
- Summer 2020 **Viral Visualizations** (published in ACM CHI 2021): Tanya Yang*, Gaby Inchoco*
Let's Go, Baby Forklift (published in *Social Media + Society*): Vesper Long*
History of Braille Uniformity: Zhirui Xiong
[Dissertation Committee Advising](#)
- 2022 Jacqueline Thanh (DSW candidate, USC Dworak-Peck School of Social Work).

Teaching

Guest Lectures

- Spring 2023 Judge for final projects, Machine Learning and Society (Atri Rudra), University at Buffalo
- Spring 2023 "Academic ableism," Feminist Disability Studies (Lydia XZ Brown), Georgetown
- Spring 2020 "Methods in Spatial History," Intro to Digital History (Stephan Risi), MIT
- Fall 2019 "Mapping and Forensic History," Forensic History (Kate Brown), MIT

Teaching Assistantships

- 2020 MIT: Medieval Economic History in Comparative Perspective (no evaluation, COVID)
- 2019 Harvard: Sugar, Spice, and Science: A Global History of Science (evaluation: [5.0/5.0](#), Certificate of Distinction for Teaching)
- 2018 MIT: American History from 1865 (evaluation: [7.0/7.0](#))
- 2017 MIT: Introduction to Anthropology (evaluation: [6.9/7.0](#))

Service

Professional Service

- 2021 Program Committee, Visualization for Social Good Workshop, IEEE Visualization
- 2020 Program Committee, ACM Conference on Fairness, Accountability, and Transparency

Peer Review

ACM FAccT, ACM CHI, IEEE VIS, *Public Culture*, NeurIPS (ethics committee)
 Just Tech Fellowship, Social Science Research Council

Institutional Service

- 2017 Judge, MIT INSPIRE; Committee, MIT Digital Technology Teaching Awards
- 2016–18 Co-founder and Treasurer, Science Studies Student Committee, MIT
- 2016–17 Department Representative, MIT Graduate Student Council

Selected Media

- 2021 **Viral Visualizations**: [Slate](#), [World Health Organization Infodemic Management](#), [POLITICO](#), [L'actualité](#), [STAT](#), [MIT News](#), [The Dissenter](#) podcast, [Random Walks](#) podcast
- 2020 **Disability and design**: [Al Jazeera English](#), [MIT News](#)

Professional Organizations

- 2020– Association for Computing Machinery (ACM), Society for Disability Studies (SDS)

- 2019– Institute of Electrical and Electronics Engineers (IEEE)
- 2016–18 History of Science Society (HSS)

External Advising

- 2022– Advisory board member, Disability Inclusion Fund, Borealis Philanthropy
- 2022– Advisory board member, WorkingWell Assistive Technology for Autistic/Neurodivergent Individuals and their Employers
- 2022– Advisory board member, Reco(r)ding CripTech Project, CripTech Incubator, Leonardo (the International Society for Arts + Sciences + Technology).