

Zane Griffin Talley Cooper

Sustainability Researcher | Intel Corporation
PhD Candidate | University of Pennsylvania

www.zanegriffintalleycooper.com

zane.cooper@intel.com

zane.cooper@asc.upenn.edu

Education

- 2022 (expected) [University of Pennsylvania](#), Annenberg School for Communication, Philadelphia, PA
Ph.D. in Communication
Dissertation: BIT/COIN/RARE/EARTH: Data, energy, and extraction across the Arctic
Chair: Dr. Jessa Lingel
- 2021 Certificate in College and University Teaching
- 2018 M.A. in Communication
- 2016 [California State University San Marcos](#), San Marcos, CA
M.A. in History
- 2010 [University of Colorado](#), Boulder, CO
B.F.A. in Film Studies

Professional Appointments

- [Intel Corporation](#)
- 2022 – Present Graduate Intern
Sustainability Program Office, Software & Advanced Technology Group

Selected Research Awards, Grants, Fellowships

- 2021 – 2023 Co-PI – Greening the Internet Research Grant - \$212k | Internet Society Foundation
- 2021 Emergent Lab Fellow – Civic Data Library of Context | Civic Software Foundation
- 2021 – Present Resident Scholar & Board Member – Narsaq International Research Station | Narsaq, Greenland
- 2020 Finalist – Cannes XR Development Showcase | Cannes Film Festival
- 2020 - 2022 Research Fellow – McHarg Center for Urbanism & Ecology | University of Pennsylvania
- 2019 Kleinman Center for Energy Policy Research Grant - \$2.5k | University of Pennsylvania
- 2019 Center for Experimental Ethnography Research Grant - \$900 | University of Pennsylvania
- 2019 Summer Culture Research Fellowship | Aarhus University, Denmark
- 2018 Top Student Paper Award – Philosophy, Theory, & Critique Division | International Communication Association
- 2018 - Present Doctoral Fellow – Center for Advanced Research on Global Communication | University of Pennsylvania

- 2017 Emerging Scholars Fellowship – Milton Wolf Seminar on Media and Diplomacy | Diplomatic Academy of Vienna
- 2016 Ecke Papers Fellowship - \$1.2k | California State University San Marcos
- 2015 Best Graduate Paper in Global History – Southern California Phi Alpha Theta Honor Society Regional Conference | Loma Linda, CA
- 2014 Top Paper in Graduate Humanities – California State University Statewide Research Symposium | California State University East Bay

Publications

- Books **Cooper, Z.G.T.**, Kinder, J., Lin, C.K., Pasek, A. (In review). *Energy*. University of Minnesota Press.
- Journal Articles Cooper, Z.G.T. (2021). Of dog kennels, magnets, and hard drives: Dealing with big data peripheries. *Big Data & Society*. <https://doi.org/10.1177%2F20539517211015430>
- Cooper, Z.G.T. (In progress). Cerium on the silver screen: A media history of rare earth elements, 1885-1970. *Technology & Culture*.
- Cooper, Z.G.T. (In progress). Infrastructural alchemy: Political economies of blockchain geographies. *Media, Culture, & Society*.
- Book Chapters Cooper, Z.G.T. (2020). Digital sovereignty as resource politics. In P. Chirumamila & C. Bergere, (Eds.), *Critical Digital Sovereignities*. CARGC Press. <https://os.pennds.org/digitaldominion/critical-digital-sovereignities-/digital-sovereignty-as-an-articulation-of-resource-politics-by-zane-griffin-talley-cooper>.
- Hogan, M., Edwards, D., **Cooper, Z.G.T.** (In press). The making of critical data center studies. In S. Noble, S. Roberts, B. Gibson, & S. Zidani, (Eds.), *The intersectional Internet II: Power, politics, & resistance online*. Peter Lang.
- Cooper, Z.G.T.**, Mattern, S. (In progress). Supply topologies. In B. Fleming, (Ed.). *Designing a Green New Deal*. Columbia University Press.
- Multimodal Publications Agrawal, P., Cheah, S., **Cooper, Z.G.T.**, Dillon, I., Fleming, B., McCullough, A.L., Wei, Y. (2022). *Field notes toward an internationalist green new deal*. [Multimedia publication]. www.internationalistgreennewdeal.org.
- Cooper, Z.G.T.**, Gressitt-Diaz, K., Cassidy, K., Jacquot, E. (2019). *Alchemical infrastructures: Making blockchain in Iceland*. [Multimodal exhibit]. www.alchemicalinfrastructures.com
- Exhibitions
- (April-May 2022). [Extraction: Earth, ashes, dust](#) | Torrance Art Museum, Los Angeles, CA
 - (Oct. 2020) Association of Internet Researchers Annual Conference | AoIR 2020, Virtual
 - (March 2020) Infrastructure under blockchain: Field investigation on mining and urban upgrading | Conversazione, New York City, NY
 - (Sept. 2019 – May 2020) Annenberg School for Communication | Philadelphia, PA
- Peer Reviewed Conferences Cooper, Z.G.T. (2022). That which escapes: Thinking through heat in proof-of-work systems. Presented at the Society for Cinema and Media Studies Annual Conference. Virtual Event: SCMS.

Cooper, Z.G.T. (2021). The deep time of bitcoin: Excavating the “work” in proof-of-work cryptocurrency mining. Presented at Association of Internet Researchers Annual Conference. Virtual Event: AoIR. <https://doi.org/10.5210/spir.v2021i0.11887>

Cooper, Z.G.T., Bridges, L., Ticona, J. (2021). Constructing the digital skills crisis: A critical conceptual history of “skill”. Presented at Association of Internet Researchers Annual Conference. Virtual Event: AoIR. <https://doi.org/10.5210/spir.v2021i0.12154>

Cooper, Z.G.T. (2021). The deep time of bitcoin: Excavating the “work” in proof-of-work cryptocurrency mining. Presented at Society for Social Studies of Science Annual Conference. Virtual Event: 4S.

Cooper, Z.G.T., Bridges, L., Ticona, J. (2021). Constructing the digital skills crisis: A critical conceptual history of “skill”. Presented at Society for Social Studies of Science Annual Conference. Virtual Event: 4S.

Cooper, Z.G.T., Gressitt-Diaz, K., Cassidy, K., Jacquot, E. (2020). Alchemical infrastructures: Making blockchain in Iceland. Presented at Association of Internet Researchers Annual Conference. Virtual Event: AoIR. www.alchemicalinfrastructures.com

Cooper, Z.G.T. (2020). Obsolescence as trust: Living with blockchain hardware. Slate for the Media Industries Conference, London, United Kingdom. (Cancelled due to Covid-19).

Cooper, Z.G.T., Gressitt-Diaz, K., Cassidy, K. (2019). Alchemical infrastructures: Making blockchain in Iceland. Presented at Society for Social Studies of Science Annual Conference, New Orleans, LA.

Cooper, Z.G.T. (2019). Mining for the future: Blockchain, renewable energy, and extractive assemblages in Iceland. Presented at International Communication Association Annual Conference, Washington, D.C.

Cooper, Z.G.T. (2018). Mining for the future: Exploring Arctic entanglements of cryptocurrency and rare earths. Presented at Association of Internet Researchers Annual Conference, Montreal, Quebec.

Cooper, Z.G.T. (2018). Of dog kennels, hard drives, and global contaminations: Toward a constitutional logic of big data. Presented at Association of Internet Researchers Annual Conference, Montreal, Quebec.

Cooper, Z.G.T. (2018). Seeing through rocks: Rare earth elements in media history. Presented at Society for Social Studies of Science, Sydney, Australia.

Cooper, Z.G.T. (2018). Of dog kennels, hard drives, and global contaminations: Toward a constitutional logic of big data. Presented at International Communication Association Annual Conference, Prague, Czech Republic. **Top Student Paper Award – Philosophy, Theory, & Critique Division.**

Cooper, Z.G.T. (2018). Betting it all on black: Rare earth mining in the U.S. since 2010. Presented at Union for Democratic Communication Conference, Chicago, IL.

Cooper, Z.G.T. (2017). Sins of attraction: The political economy of media and magnets. Presented at International Association for Media and Communication Research Annual Conference, Cartagena, Colombia.

Cooper, Z.G.T. (2017). Attractive data: The cloud, rare earth magnets, and new materialism. Presented at International Communication Association, San Diego, CA.

- Cooper, Z.G.T. (2015). Raw data: The geopolitical history of hard drive technology, 1978-1995. Presented at History of Science Society Annual Conference, San Francisco, CA.
- Cooper, Z.G.T. (2015). Raw data: The geopolitical history of hard drive technology, 1978-1995. Presented at California State University Statewide Research Symposium, San Bernardino, CA.
- Cooper, Z.G.T. (2015). Raw data: The geopolitical history of hard drive technology, 1978-1995. Presented at Southern California Phi Alpha Theta Honor Society Regional Conference, Loma Linda, CA. **Best Graduate Paper in Global History.**
- Cooper, Z.G.T. (2014). The Chinese cowboy: The Eureka expulsion and the Rock Springs massacre as extensions of western mythology. Presented at California State University Statewide Research Symposium, Hayward, CA. **Top Paper in Graduate Humanities.**
- Invited Talks and Screenings
Cooper, Z.G.T. (2022). Cerium on the silver screen: A pre-digital media history of rare earth elements. Presented at the symposium *Colors, Metals, Environments* | Science History Institute, Philadelphia, PA.
- Cooper, Z.G.T. (2022). The data-energy-resource matrix. Discussion for series *Co-Opting AI* | New York University, New York City, NY.
- Cooper, Z.G.T. (2022). Where does e-waste begin?. Presented as part of *Rising Electronic Waste in Africa: An Environment & Public Health Concern.* | African Regional Forum on Sustainable Development 2022, Kigali, Rwanda.
- Burrington, I., **Cooper, Z.G.T.** (2022). [Industrial alchemy](#). Public lecture for the University of Illinois Urbana-Champaign | Champaign, IL
- Cooper, Z.G.T. (2021). [NFTs, economic inequality, neural networks, & environmental disaster](#). Roundtable discussion for series *Art +Tech Encounters: Sustainability* | Hosted by The Grid and The Goethe Foundation San Francisco, Virtual (talk recorded and available soon).
- Cooper, Z.G.T. (2021). Mining, technology, and e-waste in Greenland. Presented to students and faculty at QUX Qaqortoq | Campus Kujalleq, Qaqortoq, Greenland
- Cooper, Z.G.T. (2020). Alchemical infrastructures: Making blockchain in Iceland (Part 1). Film screened at [Infrastructure Under Blockchain: Field Investigation on Mining and Urban Upgrading](#). | Conversazione, New York City, NY
- Cooper, Z.G.T. (2019). After the empathy machine: Building infrastructure space in VR. Presented at [Virtual Reality and Environmental Storytelling](#). | Penn Program in the Environmental Humanities, Philadelphia, PA.
- Cooper, Z.G.T. (2019). Bitcoin and energy in Iceland. Presented at *Energy Week @ Penn* | Kleinman Center for Energy Policy, Philadelphia, PA.
- Cooper, Z.G.T. (2019). Digital sovereignty as resource politics. Presented at *Data and dominion: What is digital sovereignty?* | Center for Advanced Research on Global Communication, Philadelphia, PA.
- Cooper, Z.G.T. (2017). Toward an ethnography of grand visions. Presented at Milton Wolf Seminar on Media and Diplomacy. | Diplomatic Academy of Vienna, Vienna, Austria.

Teaching

- Summer 2020 **Instructor** – Chasing the Cloud: Introduction to Network Infrastructures
100-level undergraduate course for advanced high school students at College of Liberal and Professional Studies, University of Pennsylvania
- Summer 2019 **Instructor** – Chasing the Cloud: Introduction to Network Infrastructures
100-level undergraduate course for advanced high school at College of Liberal and Professional Studies, University of Pennsylvania
- Summer 2018 **Instructor** – Chasing the Cloud: Introduction to Network Infrastructures
100-level undergraduate level course for advanced high school students at College of Liberal and Professional Studies, University of Pennsylvania
- Fall 2017 Teaching Fellow – Freedom of Expression
300-level undergraduate course at the Annenberg School for Communication, University of Pennsylvania
- Fall 2016 Teaching Fellow – Critical Theories of Popular Culture
Required undergraduate course at the Annenberg School for Communication, University of Pennsylvania
- Spring 2016 **Instructor** – Survey of World Cinema
100-level undergraduate course in the Visual Studies Department at California State University San Marcos
- Fall 2015 Teaching Associate – U.S. History, 1600-1865
Required undergraduate course at California State University San Marcos
- Spring 2015 Teaching Associate – U.S. History, 1865-Present
Required undergraduate course at California State University San Marcos
- Fall 2014 Teaching Associate – World History, 1500-Present
Required undergraduate course at California State University San Marcos

Conferences Organized

- 2022 **Building Solidarity in the Anthropocene: Approaches to Infrastructure, Environment, and Global Communication** | Philadelphia, PA/Virtual
Co-organizer
Panel Organizer and Chair – Reimagining extractive futures: Dispatches from Chile, Peehee mm’huh (Thacker Pass, Nevada), and Kalaallit Nunaat (Greenland)
- 2020 Screening Scholarship Media Festival (SSMF) | Philadelphia, PA
Co-organizer, Submissions Manager, Programming Committee
(Cancelled due to Covid-19)
- 2019 South X Southeast: Popular Culture and Coloniality, Decolonizing Global Media Studies | Philadelphia, PA
Co-organizer, Programming Committee

Journal Reviewer/Referee

- Big Data & Society
- Science, Technology, & Human Values
- New Media & Society
- Digital Geography and Society

University Service

2016 – 2017 Graduate and Professional Student Assembly | University of Pennsylvania
General Assembly Representative, Research Council

Professional Memberships

- International Communication Association
- Society for the Social Studies of Science
- Association of Internet Researchers
- Society For Cinema and Media Studies

Other Training & Relevant Experience

- 2016 – Present Web Designer, Freelance
- www.kbgressitt.com
 - www.alchemicalinfrastructures.com
 - www.rundry.org
- Summer 2017 Annenberg Summer Institute for Methods and Statistics | University of Southern California
- 2008 – 2011 Actor, Freelance | San Francisco, CA/Los Angeles, CA
- 2004 – 2010 Co-Owner/Director/Editor, Kinematic Media | Denver, CO/Los Angeles, CA
Produced award-winning short films and internal training and logistical media for corporations like The Sports Authority, Cold Stone Creamery, and Boy Scouts of America. See a selection of short films, as well as some of my freelance acting work here: <https://www.zane-griffintalleycooper.com/pastzane/when-i-used-to-do-commercials-and-make-movies-sometimes>
- 2005 – 2007 Film Preservation Technician, The Cinemalab | Englewood, CO
Repaired old films and printed duplicate negatives, primarily from the Universal Studios and Disney archives

References

Dr. Jessa Lingel, Associate Professor, University of Pennsylvania
Advisor
jessa.lingel@asc.upenn.edu

Dr. Shannon Mattern, Professor of Anthropology, The New School
Committee Member
matterns@newschool.edu

Dr. Marwan Kraidy, Dean, Northwestern University Qatar
Committee Member
s-sadler@northwestern.edu

Dr. Mél Hogan, Associate Professor, University of Calgary
Frequent Collaborator
mhogan@ucalgary.ca

Dr. Billy Fleming, Director of The McHarg Center, University of Pennsylvania
Frequent Collaborator
wflem@design.upenn.edu

