



NULab 2019 Annual Report

December 2019

1. Executive Summary

Greetings from the NULab for Texts, Maps, and Networks at Northeastern University! As we look forward to our seventh year, we want to share some highlights from our community in 2019. We have had an exciting year of interdisciplinary research, innovative teaching, and events programming with participants from the Northeastern community, Boston, and beyond.

The **NULab's strategic goals** are to support interdisciplinary faculty research and teaching in digital humanities and computational social science, and to encourage cross-pollination among the range of disciplines represented by the NULab faculty. To this end, we provide opportunities—through seedling grants, regular events, and internal meetings—for collaborative exploration that can spur potential funding initiatives and shared research projects. We also support the development of multigenerational research teams involving faculty, graduate, and undergraduate researchers.

In 2019, the **NULab's significant accomplishments** include:

- Over 20 events, including lectures, workshops, and conferences, reaching over 600 attendees. The annual conference in 2019 addressed themes of “Digital Storytelling” (March 2019); our March 2020 conference will focus on “The Technologies of Democracy.” A full listing of events is included in the appendix to this report and also on the [NULab web site](#).
- 22 NULab seedling and travel grants, including 8 to faculty, and 14 to graduate students. A full listing of grants is included in the appendix to this report and also on the [NULab web site](#).
- NULab faculty published one book and over 50 articles, and produced other important research artifacts (code, websites, etc.). Notably, significant portions of this research were collaborative and cross disciplinary: over half of these works are co-authored, many of them across disciplinary boundaries. A full listing is included in the appendix to this report and also on the [NULab web site](#).
- Our faculty produced 43 external grant proposals, 17 of which were funded, one was declined, and 25 are still pending. In 2019 our faculty held 17 externally funded awards.
- We expanded the Digital Integration Teaching Initiative (launched in 2018) to cover 42 courses taught by 32 faculty, working with more than 900 students.

For the **coming year**, we will focus on expanding our support for the Digital Integration Teaching Initiative, building out the Digital Humanities graduate certificate to include a stand-alone certificate option, and expanding our seedling grants program to initiate more external funding opportunities. In the longer term, in partnership with DSG and the library, we also aim to create an expanded physical presence for the NULab where its connections with groups like DSG, the CoLab for Data Impact, and the Boston Research Center can be more fully explored.

In the report that follows, we provide a fuller picture of the NULab's activities for the year, including details of seedling and travel grants awarded, current collaborative research projects, information about the Digital Integration Teaching Initiative, and a full listing of NULab events in 2019.

2. Seedling and Travel Grants

In 2019, we supported 22 research projects and travel opportunities with [NULab Seedling and Travel Grants](#). NULab travel grants enabled faculty and graduate students to present their research at a wide variety of conferences, including the Association for Computers and the Humanities conference, DH2019, the Sunbelt Social Networks conference, the Southern Political Science Association conference, the International Communication Association conference, the Society of Early Americanists conference, and the International Conference on Media and Society.

Projects supported by the NULab Seedling grants include new research initiatives from faculty and graduate students in Architecture, Communication Studies, English, History, Journalism, the Network Science Institute, and Public Policy and Urban Affairs.

- Many of these projects contribute to important work on social justice and equity. For example, the *Black Architects Archive*, developed by Jay Cephas, will collect and display the work of black architects across history to bring to light under-represented practitioners in architecture.
- A team in Journalism, led by Meg Heckman, is working with *The Scope* to create an interactive digital project mapping neighborhood name changes in Boston to analyze the ways identity changes affect civic life.
- We have several projects that are studying important developments in political and social discourse: Brooke Foucault-Welles and Ryan Gallagher are using network analysis to study the emotional dynamics of polarization and Briony Swire-Thompson is investigating the “backfire effect” in which the correction of misinformation leads to an increased investment in the veracity of that misinformation.
- NULab projects frequently connect with larger research initiatives, such as with Ryan Cordell's *Letterpress Goes 3D* project; NULab seedling funding will enable Cordell to develop prototype letterpress models for this project, which is part of Northeastern's Multi-generational Research Teams Pilot Program.
- NULab seedling grants are also enabling graduate students to create new digital publications and resources: Abbie Levesque is developing and applying a schema to model interviews she has collected as part of a dissertation that investigates how memes function as a literacy practice among LGBTQ+ internet groups. Cara Marta Messina is building a “Critical Fan Toolkit,” a digital dissertation that traces how fans implement critical practices in their fanfiction. And Molly Nebiolo is developing interactive 3D digital modules for a dissertation that studies health and urban spaces in the early colonial Atlantic world.

We are excited to add these seedlings to the growing set of [NULab projects](#) and we look forward to sharing the outcomes of these promising new initiatives in the year to come.

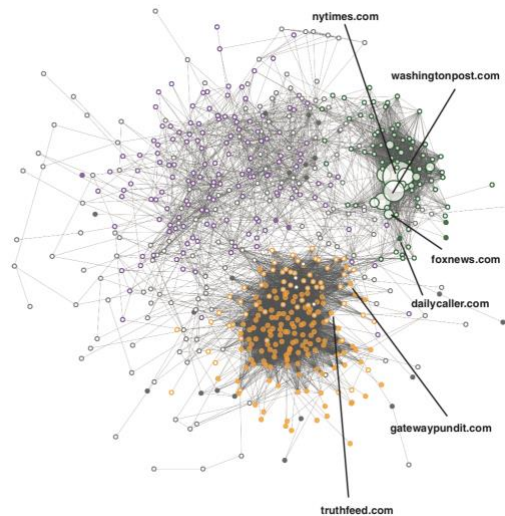
3. Collaborative Research

Innovative scholarship from the NULab community this year includes more than 25 faculty [grants](#) and over 40 [publications](#). Several new projects involve internally funded initiatives that bring together multiple faculty members from across schools at Northeastern. These include an effort to build a digital archive for the Cherokee language (led by Julia Flanders, Ellen Cushman, and David Smith) and research on measuring the success of social movements (led by Elizabeth Maddock Dillon, Laura Nelson, Moya Bailey, and Meg Heckman).

Our faculty have received grants and fellowships from institutions such as the National Science Foundation, the Boston Foundation, the William T. Grant Foundation, the Massachusetts Department of Public Health, the

National Endowment for the Humanities, Fonds de Soutien à L'activité Scientifique, the Poynter Institute for Media Studies, and the Charles Koch Institute. Several recently funded and proposed projects include:

- **Nicholas Beauchamp (Principal Investigator), David Lazer, Donghee Jo, Kenneth Joseph, and Lu Wang (Participants), Social Science Research Council:** [Measuring the Effects of Peer Sharing on Fake and Polarized News Consumption](#). This project is developing new natural language processing methods to measure ideology and emotion in news content, studying the effects of these phenomena on sharing, consumption, and polarization.
- **David Lazer (Principal Investigator), Lu Wang (Principal Investigator), and Briony Swire-Thompson (Senior Personnel), National Science Foundation:** *CHS: SMALL: Combating Misinformation: Characterization, Detection, and Control* (proposed). This project will develop new computational methods for early detection of misinformation, including fact-checking measurements for proactive interventions on misinformation.



Coexposure network. Each node is a political news, blog, or fact-checking website.

Edges link pairs of sites where an unusually high number of (nonoutlier) panel members were exposed to content from both sites, controlling for the popularity of each site. Filled nodes represent fake news sources. Node colors indicate groups (1, green; 2, orange; 3, purple; 4, gray) identified via an ensemble of clustering algorithms. Sites with the highest exposures are sized slightly larger.

From: "Take news on Twitter during the 2016 U.S. presidential election"

By Nir Grinberg, Kenneth Joseph, Lisa Friedland, Briony Swire-Thompson, and David Lazer, published in Science Magazine

- **Alan Mislove (Principal Investigator), National Science Foundation:** [Understanding and Mitigating the Privacy and Societal Risks of Advanced Advertising Targeting and Tracking](#). In this project, Mislove and his collaborators explore increased privacy and security for internet advertising.
- **Alicia Sasser Modestino (Co-Principal Investigator), National Science Foundation:** [Collaborative Robots to Impact Seafood Processing \(CRISP\): Designs, Tools, and Methods for Enhanced Worker Experience](#). In this project, Modestino and her collaborators investigate the development and deployment of robots in the seafood processing industry, designing AI systems for sustainable, economic, and ethical human-robot collaboration.
- **Laura Nelson (Senior Personnel), National Science Foundation:** [Diffusion of Ideas of Gender Equity Interventions through Networks of U.S. Universities](#). In this project, Laura Nelson is collaborating with Kathrin Zippel to use social network analysis and computer-assisted text analysis to study the diffusion of ideas about change and gender equity among grantees in the NSF ADVANCE program, examining how universities have cooperated, learned from, or influenced each other.
- **Laura Nelson (Principal Investigator), National Science Foundation:** *Innovation Networks: The Creation and Diffusion of Gender Equity Ideas in Universities* (proposed). In this project, Laura Nelson will collaborate with Kathrin Zippel to further the research on gender equity begun in the NSF "Diffusion of Ideas of Gender Equality Interventions" project.
- **Dietmar Offenhuber, 2019–2020 Princeton Mellon Fellow in Architecture, Urbanism and the Environment.** As a fellow this year, Offenhuber explores material aspects of environmental data

collection and visual evidence construction in his project, *Sensory Accountability—Materializing Pollution in New Jersey’s Industrial Centers*.

- **David Smith (Principal Investigator), NEH Digital Humanities Advancement Grant:** [*Improving Optical Character Recognition and Tracking Reader Annotations in Printed Books by Collating and Transcribing Multiple Exemplars*](#). In this project, David Smith is developing computational image and language models to improve optical character recognition on historical books with a collational transcription system.

NULab faculty members also have many new and forthcoming book publications, including:

- **Moya Bailey and Brooke Foucault Welles, co-authors with Sarah J. Jackson.** [*#HashtagActivism: Networks of Race and Gender Justice*](#) (forthcoming, MIT Press), which shows how marginalized groups, long excluded from elite media spaces, have used Twitter hashtags to advance counternarratives, preempt political spin, and build diverse networks of dissent.
- **Ryan Cordell, David Smith, Abby Mullen, and Jonathan D. Fitzgerald.** [*Going the Rounds: Virality in Nineteenth-Century Newspapers*](#) (forthcoming, University of Minnesota Press), which draws on the [Viral Texts Project](#) to trace the “morselized” information circulating in nineteenth-century newspapers, not by searching for individual texts or authors, but instead by employing methods from natural language processing and computational linguistics to read across the digitized newspaper corpora.
- **Julia Flanders, co-editor with Fotis Jannidis,** [*The Shape of Data in Digital Humanities: Modeling Texts and Text-based Resources*](#) (Routledge), which addresses the needs of humanities scholars who seek deeper expertise in the area of data modeling and representation.
- **David M. J. Lazer, co-author with Michael A. Neblo and Kevin M. Esterling,** [*Politics with the People: Building a Directly Representative Democracy*](#) (Cambridge University Press), which develops the principles and practice of “directly representative democracy”—a new way of connecting citizens and elected officials to improve representative government.
- **Meg Heckman,** [*Political Godmother: Nackey Scripps Loeb and the Newspaper That Shook the Republican Party*](#) (forthcoming, University of Nebraska Press), which explores the career of newspaper publisher and conservative activist Nackey Scripps Loeb who used New Hampshire’s *Union Leader* to shape right-wing politics in ways that continue to reverberate today.
- **Daniel T. O'Brien,** [*The Urban Commons: How Data and Technology Can Rebuild Our Communities*](#) (Harvard University Press), which offers a pioneering model of what modern digital data and technology can do for cities like Boston that seek both prosperous growth and sustainability.
- **John Wihbey,** [*The Social Fact: News and Knowledge in a Networked World*](#) (MIT Press), which explores how the structure of news, information, and knowledge and their flow through society are changing, and considers how news media can demonstrate the highest possible societal value in the context of these changes.



4. Digital Integration Teaching Initiative

This fall marked the second year of the [Digital Integration Teaching Initiative](#) (DITI), a collaboration with faculty across CSSH to introduce students to digital methods and skills. Rather than adding additional topics or assignments, the DITI team instead works with faculty to integrate digital skills and enhance existing course learning goals and outcomes.

In 2019 the DITI team had 33 faculty partnerships in a total of 56 courses, working with more than 900 students. We partnered with faculty in a range of departments and programs, including Criminology, Economics, English, History, Human Services, Philosophy, Political Science, Sociology and Anthropology, and the Writing Program. The team has taught a broad range of topics that includes data ethics, statistical analysis, text analysis, text encoding, podcasting, and citation management.



Student project: Aparna Dutta (2019), Linguistics with minors in Computer Science and Psychology: “Boston Parks and Playgrounds: Community Scan.”
Project link: <https://uploads.knightlab.com/storymaps/519665db8eed0565cdf065cd5953daff/science-of-play-community-scan-6-10-19/index.html>. Class module link: https://github.com/NULabNortheastern/digitalassignments Showcase/tree/master/mapping/science_of_play-summer2019-mann

DITI class partnerships are focused on helping students to actively integrate the skills they are learning with course topics and discussions. For example:

- We partnered with Kelly Garneau to teach a module on [Data Ethics and Digital Collection](#) in an *Introduction to First Year Writing* course, covering how data is being used in society, how algorithms affect our daily lives, and how privacy and security are being redefined by big data.
- We worked with Professor Ineke Marshall's *Research Methods in Sociology* course to teach a [module](#) on data analysis and qualitative coding in which students developed survey and interview questions and then coded their data with NVivo.
- We taught “[Introduction to R for Statistics](#)” in Professor Alicia S. Modestino's *Labor Economics* course—this module covered uses of R for conducting statistical analyses and visualizing data.
- We joined Kirsten Rodine-Hardy's *International Political Economy* and *Political Science Research Methods* courses to teach a “[Computational Text Analysis](#)” module that introduced core concepts of text analysis, including corpus selection and preparation, common tools and methods, and interpretation of results.

The DITI team is now working on spring planning; we plan to partner with 24 faculty members in 32 courses and are looking forward to developing new modules and materials for this program. For more on the DITI's activities in fall 2019 and plans for spring 2020, please see [here](#).

5. Events

In 2019, the NULab hosted more than 20 events, including panels, workshops, conferences, and lectures that reached over 600 people in the greater Boston community.

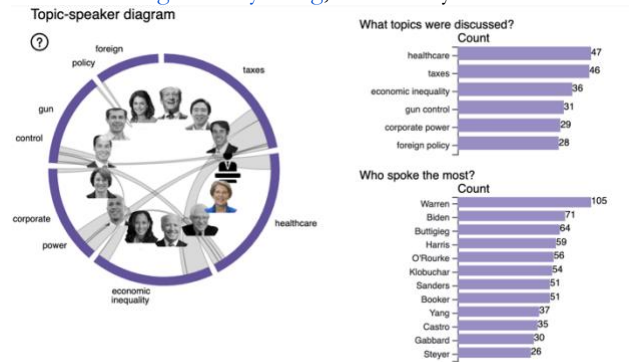
In the spring term, we held an exciting series of events, including two conferences and several lectures on our 2018–2019 theme: “Digital Storytelling.” In February—partnering with the College of Arts, Media and Design;

the Program in African and African-American Studies; the School of Journalism; and the Departments of Communication Studies and History—we welcomed Jack Hitt and Chenjerai Kumanyika, the co-creators of Gimlet Media’s Peabody award-winning history podcast “[Uncivil](#),” to share untold stories of the Civil War and discuss how narrative journalism is challenging dominant narratives of American history.

Collaborating with the Global Resilience Institute, the Department of English, the Humanities Center, and the School of Public Policy & Urban Affairs at Northeastern, we hosted the “[Climate Change/Crisis/Creativity](#)” conference in February. This conference featured the [Peter Burton Hanson Memorial Lecture](#) delivered by Bethany Wiggin, University of Pennsylvania: “Climate Change and Pedagogy: Experiential and Embodied Learning for the Academy and Beyond.” The event provided an interdisciplinary forum on connections between creativity, personal networks, and community for environmental change, with a series of lightning talks by Northeastern faculty and presentations by artists whose work engages with climate change.

In March, we hosted the third annual NULab spring conference on “[Digital Storytelling](#),” with a keynote delivered by Jessica Marie Johnson, Johns Hopkins University: “All the Stars Are Closer: Galaxies of Black Digital Practice.”

The conference featured the work of faculty, graduate students, and research collaborators on topics that included teaching in the humanities with data, digital methods for storytelling, and the circulation of stories and information. Some projects shared at the conference were Nick Beauchamp and Laura South’s [DebateVis](#), a dynamic visualization that enables analysis of the topics expressed in presidential and primary debates; the Co-Laboratory for Data Impact, directed by NULab faculty members Pedro Cruz, Dietmar Offenhuber, and John Wihbey; and the [Literature and Digital Diversity](#) course, taught by Elizabeth Maddock Dillon and Sarah Connell.



DebateVis: <https://web.northeastern.edu/debatevis/>

Our events this fall highlighted a range of exciting new publications by NULab faculty; in October, we hosted a [panel](#) featuring Jen Schradie (Observatoire sociologique du changement at Sciences Po), and Brooke Foucault Welles (Northeastern University), who discussed their books on social media, activism, and networks in an event co-sponsored with the Department of Sociology. In November, we held a book release discussion and reception, “[NU Books from the NULab](#),” featuring five faculty members who have recently published books: Moya Bailey, Julia Flanders, David Lazer, Dan O'Brien, and John Wihbey.



*Moya Bailey, Sarah J. Jackson, Brooke Foucault Welles.
Photo by Matthew Madoono/Northeastern University*

This was the third year in which we have co-hosted the Misinformation Speaker Series with Harvard Kennedy School’s Shorenstein Center on Media, Politics, and Public Policy. As part of this series, we welcomed Jamie Settle, College of William & Mary, to [discuss](#) her recent book on fake news and Facebook, *Frenemies: How Social Media Polarizes America*, an event that was also co-sponsored with the Department of Political Science. In November, Miriam Metzger, University of California, Santa Barbara, [presented her paper](#): “How Bad is Fake

News? Motivations for Sharing Misinformation Online,” an event also co-sponsored with the Department of Communication Studies. The series wrapped up in December with David Lazer, NULab Co-Director, presenting his research on democracy and fake news: “Democracy, today: Fake news, social networks, and algorithms.” We will continue this partnership in the spring, with a series of [lectures](#) that will be hosted at the Shorenstein Center.

Looking forward to 2020, we are excited to continue with our interdisciplinary research, teaching, and community-building! We hope that you will engage with the NULab, either in person through our upcoming events or with our online resources and projects. Our warmest wishes for a productive and successful new year!

Appendix

NULab Faculty Publications in 2019

Ali, Muhammad, Piotr Sapiezynski, Miranda Bogen, Aleksandra Korolva, Alan Mislove and Aaron Rieke. “Discrimination Through Optimization: How Facebook’s Ad Delivery Can Lead to Biased Outcomes.” In *Proceedings of the ACM Conference on Computer Supported Cooperative Work*, 2019.

Andreou, Athanasios, Marcio Silva, Fabricio Benevenuto, Oana Goga, Patrick Loiseau, and Alan Mislove. “Measuring the Facebook Advertising Ecosystems.” In *Proceedings of the Network and Distributed System Security Symposium*, 2019.

Bailey, Moya, et al. “Open Letter to Editors of Journal of the National Medical Association from the Black Feminist Health Science Studies Collective.” In *Journal of the National Medical Association*, 2019.

Bajak, Aleszu, John Wihbey, Gibson Free, and Paxtyn Merten. “Newsroom Textual Analysis and Visualization Tools Built With R Shiny.” In *Computation + Journalism Symposium*, 2019.

Blevins, Cameron. “[A Tour of the Virtual Stacks.](#)” In *Modern American History*, 2019.

Blevins, Cameron. “Women and Federal Officeholding in the Late Nineteenth-Century U.S.” In *Current Research in Digital History*, 2019.

Chung, Myo. “[The message influences me more than others: How and why social media metrics affect first person perception and behavioral intentions.](#)” In *Computers in Human Behavior*, 91, 271-278, 2019.

Chung, Myo, and H. K. Kim. “[Effects of Media Frame and Onset Controllability on Support for Postpartum Depression Policy.](#)” In *Journal of Health Communication*, 1-9, 2019.

Flanders, Julia. “Building Otherwise.” In *Bodies of Information: Intersectional Feminist Digital Humanities*, ed. Jacqueline Wernimont and Elizabeth Losh. University of Minnesota Press, 2019.

Foucault Welles, Brooke and Sarah J. Jackson. “The Battle for #Baltimore: Networked Counterpublics and the Contested Framing of Urban Unrest.” In *International Journal of Communication*. 13, 1699-1719, 2019.

Ghosh, Avijit, Giridhari Venkatadri, and Alan Mislove. “Analyzing Facebook Political Advertisers’ Targeting.” In *Proceedings of the Workshop on Technology and Consumer Protection*, 2019.

Heckman, Meg. “[How This J-School Brought Real-World Learning into the Classroom.](#)” Poynter, 2019.

Heckman, Meg. “[Men Are Writing Two-Thirds of National Stories about the 2020 Presidential Race.](#)” Storybench, 2019.

Heckman, Meg and Aleszu Bajak. “[History Repeats Itself as Women on the 2020 Campaign Trail Receive More Negative Coverage than their Male Peers.](#)” Storybench, 2019.

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- Heckman, Meg, Aria Bracci and Gibson Free. "Breaking: Reconstructing Digital Coverage of the 'Watershed Event' for Online News." In *Re:Constructing Evidence*. Cyberarts Gallery, Boston, 2019.
- Heckman, Meg and John Wihbey. "[Mobile Matters – and Publishers Must Remember That, Even When Resources Are Limited.](#)" Poynter, 2019.
- Heckman, Meg and John Wihbey. "[The Local-Mobile Paradox: Missed Innovation at Local Newspapers.](#)" In *Newspaper Research Journal*, 2019.
- Jackson, Sarah J., Moya Bailey, and Brooke Foucault Welles. (2019). "Women Tweet on Violence: From #YesAllWomen to #MeToo." In *Ada: A Journal of Gender, New Media & Technology*, issue 15, 2019.
- Kakhki, Arash Molavi, Samuel Jero, David Choffnes, Alan Mislove, and Cristina Nita-Rotaru. "Taking a Long Look at QUIC: An Approach for Rigorous Evaluation of Rapidly Evolving Transport Protocols." In *Communications of the ACM*, 2019.
- Killelea, Brigid K., Alicia Sasser Modestino, Jennifer Gass, Henry M. Kuerer, Julie Margenthaler, Susan K. Boolbol, Jill R. Dietz, and Eric R. Manahan. "[The 2018 Compensation Survey of the American Society of Breast Surgeons.](#)" In *Annals of Surgical Oncology*, 2019.
- Li, Fangfan, Arian Akhavan Niaki, David Choffnes, Phillipa Gill, and Alan Mislove. "A Large-Scale Analysis of Deployed Traffic Differentiation Practices." In *Proceedings of the Conference of the ACM Special Interest Group on Data Communication*, 2019.
- Mislove, Alan, et al. "Machine Behaviour." *Nature*, 2019.
- Mislove, Alan, et al. "RPKI is Coming of Age: A Longitudinal Study of RPKI Development and Invalid Route Origins." In *Proceedings of the ACM Internet Measurement Conference*, 2019.
- Modestino, Alicia Sasser. "[How Do Summer Youth Employment Programs Improve Criminal Justice Outcomes, and for Whom?](#)" In *Journal of Policy Analysis and Management*, 2019.
- Modestino, Alicia Sasser and Richard J. Paulsen. "[Reducing Inequality Summer by Summer: Lessons from an Evaluation of the Boston Summer Youth Employment Program.](#)" In *Evaluation and Program Planning*, 2019.
- Modestino, Alicia Sasser, Daniel Shoag, and Joshua Ballance. "Upskilling: Do Employers Demand Greater Skill When Workers are Plentiful." In *The Review of Economics and Statistics*, 2019.
- Modestino, Alicia Sasser, Keimi Sugiyama, and Jaime Ladge. "[Careers in Construction: An Examination of the Career Narratives of Young Professionals and Their Emerging Career Self-Concepts.](#)" In *Journal of Vocational Behavior*, 2019.
- Modestino, Alicia Sasser, Rachel Sederberg, and Liana Tuller. "[Assessing the Effectiveness of Financial Coaching: Evidence from the Boston Youth Credit Building Initiative.](#)" In *The Journal of Consumer Affairs*, 2019.
- Müller, Moritz, Taejoong Chung, Alan Mislove, and Roland van Rijswijk-Deij. "Rolling with Confidence: Managing the Complexity of DNSSEC Operations." *IEEE Transactions on Network and Service Management*, 2019.
- Nelson, Laura K. "[Comment: To Measure Meaning in Big Data, Don't Give Me a Map, Give Me Transparency and Reproducibility.](#)" In *Sociological Methodology*, 2019.
- Nelson, Laura K. "[How do we Nurture an Academic Landscape that is more Accessible to Women? Let's Get Rid of the In-Person Interview.](#)" SAGE OCEAN Blog, 2019.

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- O'Brien, Daniel T., Chelsea Farrell, and Brandon C. Welsh. "Broken (Windows) Theory: A Meta-Analysis of the Evidence for the Pathways from Neighborhood Disorder to Resident Health Outcomes and Behaviors." In *Social Science & Medicine*, 2019.
- O'Brien, Daniel T., Chelsea Farrell, and Brandon C. Welsh. "Looking Through 'Broken Windows:' The Impact of Neighborhood Disorder on Aggression and Fear of Crime is an Artifact of Research Design." In *Annual Review of Criminology*, 2019.
- O'Brien, Daniel T. "The Action is Everywhere, but Greater at More Localized Spatial Scales: Comparing Concentrations of Crime Across Addresses, Streets, and Neighborhoods." In *Journal of Research in Crime and Delinquency*, 2019.
- Offenhuber, Dietmar. "[The Platform and the Bricoleur—Improvisation and Smart City Initiatives in Indonesia.](#)" In *Environment and Planning B: Urban Analytics and City Science* 46 (8): 1565–80, 2019.
- Offenhuber, Dietmar. "Tarzan vs. IBM: Value Paradigms of Urban Technologies." In *Urban Design Companion: A Sequel*, edited by Tridib Banerjee and Anastasia Loukaitou-Sideris, 1st ed., 535–48. London: Routledge, 2019.
- Offenhuber, Dietmar. "[Data by Proxy-Material Traces as Autographic Visualizations.](#)" In *IEEE Transactions on Visualization and Computer Graphics*, 2019.
- Offenhuber, Dietmar. "Premium Places." In *How to Run a City Like Amazon, and Other Fables*, edited by Mark Graham, Rob Kitchin, Shannon Mattern, and Joe Shaw. Meatspace Press, 2019.
- Offenhuber, Dietmar. "Dustmark and Ozone Tattoos: Autographic displays of air pollution." VISAP 2019, IEEE VIS, Vancouver, 2019.
- Paulsen, Richard, Alicia Sasser Modestino, Muhammad Mahmudul Hasan, Muhammad Noor-E-Alam, Leonard Young, and Gary J. Young. "Patterns of Suboxone Prescribing: An Analysis of Claims Data from Massachusetts." In *American Journal of Drug and Alcohol Abuse*, 2019.
- Roberts, Richard, Yaelle Goldschlag, Rachel Walter, Taejoong Chung, Alan Mislove and Dave Levin. "You Are Who You Appear to Be: A Longitudinal Study of Domain Impersonation in TLS Certificates." In *Proceedings of the ACM Conference on Computer and Communications Security*, 2019.
- Sapiezynski, Piotr, Wesley Zeng, Ronald E. Robertson, Alan Mislove and Christo Wilson. "Quantifying the Impact of User Attention on Fair Group Representation in Ranked Lists." In *Proceedings of the Workshop on Fairness, Accountability, Transparency, Ethics, and Society on the Web*, 2019.
- Silbey, Jessica. "Contemporary Photography, the Right of Publicity and the First Amendment." In 42 Colum. J. L. & Arts 351, 2019.
- Silbey, Jessica. "Justifying Copyright in the Age of Digital Reproduction: The Case of Photographers." In 9 U.C. Irvine L. R. 405, 2019.
- Silbey, Jessica and Eric Goldman "Copyright's Memory Hole." In B.Y.U. L. R., 2019.
- Silbey, Jessica and Woodrow Hartzog "Upside of Deep Fakes." In 78 U. Md. L. Rev. 960, 2019.
- Silbey, Jessica, Peter DiCola and Eva Subotnik "Existential Copyright and Professional Photography." In 95 Notre Dame L.R., 2019.

Venkatadri, Giridhari, Elena Lucherini, Piotr Sapieżyński, and Alan Mislove. “Investigating Sources of PII Used in Facebook’s Targeted Advertising.” In *Proceedings of the Privacy Enhancing Technologies Symposium*, 2019.

Venkatadri, Giridhari, Piotr Sapieżyński, Elissa M. Redmiles, Alan Mislove, Oonga Goga, Michelle Mazurek, and Krishna P. Gummadi. “Auditing Offline Data Brokers via Facebook’s Advertising Platform. In *Proceedings of the International World Wide Web Conference*, 2019.

Wihbey, John. *The Social Fact: News and Knowledge in a Networked World*. MIT Press, 2019.



NULab Seedling Grants in 2019

Geoff Boeing, Faculty, Public Policy and Urban Affairs: Comprehensive Indicators of the Urban Form.

J. Cephas, Faculty, Architecture: The Black Architects Archive.

Ryan Cordell, Faculty, English: Letterpress Goes 3D.

Meg Heckman, Faculty, Journalism; Eileen O’Grady, Ruth Hunger, and Jordan Erb, Graduate Students, Journalism: Mapping transformation: How Changing Neighborhood Identities Affect Civic Life.

Abbie Levesque, Graduate Student, English: Queer Meme Community Project.

Cara Marta Messina, Graduate Student, English: The Critical Fan Toolkit: Fanfiction Genres, Ideologies and Pedagogies.

Molly Nebiolo, Graduate Student, History: Health and the Construction of Early American Cities.

Briony Swire-Thompson, Postdoctoral Researcher, Network Science Institute: Fake News and Backfire Effects.

Brooke Foucault Welles, Faculty, Communication Studies; Ryan Gallagher, Graduate Student, Network Science: Measuring Affective Dynamics in Polarized Publics and Counterpublics.

NULab Travel Grants in 2019

Cameron Blevins, Faculty, History: Humanities Intensive Learning and Teaching (HILT).

Avery Blankenship, Graduate Student, English: “Novels in the News: The Reprinting of Fiction in Nineteenth-Century Newspapers” at ACH 2019.

Hanyu Chwe, Graduate Student, Network Science: Sunbelt 2019.

Ryan Gallagher, Graduate Student, Network Science: “Core-Periphery Decomposition of Networked Publics and Counterpublics” at ICA 2019.

Justin Haner, Graduate Student, Political Science: “Organizing Europe: An Analysis of Expanding Zones of Common Governance and the Long-Term Decline in European Armed Conflict” at the Southern Political Science Association’s (SPSA) annual conference.

Abbie Levesque, Graduate Student, English: “XM<LGBT/>: Enacting the QueerOS” at ACH2019.

David Medina, Graduate Student, English: “Decolonizing the Archive: The Early Caribbean Digital Archive and Digital Remix” at SEA 2019.

Cara Marta Messina, Graduate Student, English: “Reimagining Romance: ‘The Legend of Korra’ Critical Fandom Practices” at ACH2019.

Molly Nebiolo, Graduate Student, History: “The Birth of Boston” at DH2019.

Gregory Palermo, Graduate Student, English: Digital Humanities Summer Institute.

Sarah Shugars, Graduate Student, Network Science: “The Structure of Reasoning: Inferring Conceptual Networks from Free Response Text” at Sunbelt 2019.

Jeffrey Sternberg, Graduate Student, Sociology: “Using Computer Vision to Capture the Collective Perception of a Neighborhood” at PaCSS 2019.

John Wihbey, Faculty, Journalism: “Breaking News and Younger Twitter Users: Comparing Self-report Motivations with Online Behavior” at the International Conference on Media and Society.

NULab Spring 2019 Events

January 22, 10am–12pm, 422 Snell Library

“Introduction to Stylometry” Workshop

Presented by: Molly Nebiolo

<https://web.northeastern.edu/nulab/event/stylometry-workshop/>

February 7, 4–6pm, 909 Renaissance Park

Visiting speakers: Jack Hitt and Chenjerai Kumanyika of Gimlet Media’s new Peabody award-winning history podcast “Uncivil”

Co-sponsored with the College of Arts, Media and Design; the Program in African and African-American Studies; the School of Journalism; and the Departments of Communication Studies and History

<https://web.northeastern.edu/nulab/event/uncivil/>

February 14, 12–2pm, Digital Scholarship Commons

“Douglass Day” Transcribe-a-thon and celebration

Co-sponsored with the DSG and the Women Writers Project

<https://web.northeastern.edu/nulab/event/douglass-day-2019/>

February 22, 9am–5pm, Raytheon Amphitheater

“Climate Change/Crisis/Creativity” Conference

Keynote speaker: Bethany Wiggin, University of Pennsylvania

Co-sponsored with the School of Public Policy and Urban Affairs, the Department of English, and the Global Resilience Institute

<https://web.northeastern.edu/nulab/event/climate-change-crisis-creativity/>



Climate Change/Crisis/Creativity Conference

February 27, 12–1pm, Digital Scholarship Commons

“Map Commuting Emotion” Workshop

Presented by: Bahare Sanaie-Movahed

Co-sponsored with Love Data Week

<https://web.northeastern.edu/nulab/event/map-commuting-emotion-workshop/>

March 14, 12–2pm, NULab Commons

“Viral Texts” Workshop and transcribe-a-thon

<https://web.northeastern.edu/nulab/event/viral-texts-transcribe-a-thon/>

March 21, 2–4pm, 909 Renaissance Park

“Digital Public Humanities” Panel with Alex Gil, Columbia University, and Roopika Risam, Salem State University, both of the *Torn Apart / Separados* project; Caroline Klibanoff, MIT Museum; Jim McGrath, Brown University

Co-sponsored with the Northeastern University Humanities Center

<https://web.northeastern.edu/nulab/event/digital-public-humanities/>

March 25, 10am–12pm and 1–3pm, 909 Renaissance Park

“Introduction to Python for Data Analysis” Workshop

Instructor: Jason Radford

Co-sponsored with the School of Criminology and Criminal Justice and the Department of Sociology and Anthropology

<https://web.northeastern.edu/nulab/event/intro-python-data-analysis/>

March 29, 9:30am–5pm, Alumni Center

NULab Spring Conference: “Digital Storytelling”

Keynote speaker: Jessica Marie Johnson, Johns Hopkins University

<https://web.northeastern.edu/nulab/event/nulab-spring-conference-digital-storytelling/>

April 9, 1–2pm, Digital Scholarship Commons

NULab Fellows Research Presentations

<https://web.northeastern.edu/nulab/event/nulab-fellows-research-presentation/>

NULab Fall 2019 Events

September 11, 12–1 pm, Digital Scholarship Commons

NULab/DSG Visiting Speaker: Melissa Schlecht, University of Stuttgart

Co-sponsored with the DSG

<https://web.northeastern.edu/nulab/event/melissa-schlecht/>

October 2, 12–1:30pm, 177 Huntington Ave., 11th Floor

Misinformation Speaker Series: Jaime Settle, College of William & Mary

“Frenemies: How Social Media Polarizes America”

Co-sponsored with the Shorenstein Center and the Department of Political Science

<https://web.northeastern.edu/nulab/event/jaime-settle/>

October 15, 10am–12pm, Digital Scholarship Commons

“Introduction to GitHub” Workshop

Presented by: Cara Marta Messina

<https://web.northeastern.edu/nulab/event/github-2019/>

October 22, 12–2pm, Alumni Center

A discussion and book signing with Jen Schradie, author of *The Revolution That Wasn't: How Digital Activism Favors Conservatives*; and Brooke Foucault Welles, co-author of *#HashtagActivism: Networks of Race and Gender Justice*, with Sarah J. Jackson and Moya Bailey

Co-sponsored with the Department of Sociology

<https://web.northeastern.edu/nulab/event/schradie-welles/>

October 23, 12–1pm, Digital Scholarship Commons

NULab/DSG Visiting Speaker: Asko Nivala, Academy of Finland Postdoctoral Researcher

Co-sponsored with the DSG

<https://web.northeastern.edu/nulab/event/asko-nivala/>

October 30, 3–5pm, 90 Snell Library

NULab/DSG Fall Welcome

Keynote Speaker: Laura Nelson, Northeastern University, “Machine Learning is Feminist”

Co-sponsored with the DSG

<https://web.northeastern.edu/nulab/event/fall-welcome-2019/>

November 5, 1–2pm, 177 Huntington Ave., 11th Floor

Misinformation Speaker Series: Miriam Metzger, UC Santa Barbara

Co-sponsored with Shorenstein Center and the Department of Communication Studies

<https://web.northeastern.edu/nulab/event/miriam-metzger/>

November 13, 10am–2pm, Digital Scholarship Commons

GIS Day Workshop and Map-a-thon

Co-sponsored with the DSG and Research Data Services in the Northeastern University Library

<https://web.northeastern.edu/nulab/event/gis-day-2019/>

November 19, 4:30–6pm, Alumni Center

NU Books from the NULab

A discussion and reception with NULab faculty members who have recently published books

Featuring: Moya Bailey, Julia Flanders, David Lazer, Dan O'Brien, and John Wihbey

<https://web.northeastern.edu/nulab/event/nu-books/>

November 20, 12-1pm, Digital Scholarship Commons

NULab Seedling Research Presentation: Briony Swire-Thompson, Network Science Institute

Co-sponsored with the DSG

<https://web.northeastern.edu/nulab/event/briony-swire-thompson/>