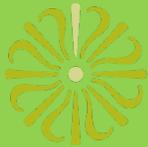


# Understanding Digital Culture

A Virtual Institute for Social Media Research



UNIVERSITY OF  
CENTRAL FLORIDA



NATIONAL ENDOWMENT FOR THE  
**Humanities**

**Institutes for Advanced Topics in the  
Digital Humanities**  
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Anastasia Salter and Mel Stanfill  
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# Project Summary

**Understanding Digital Culture: Humanist Lenses for Internet Research**, led by Anastasia Salter and Mel Stanfill in June 2020, aimed to increase the number of humanities scholars using digital tools for data collection and analysis in internet research. Drawing on the expertise of an interdisciplinary community of humanities scholars spanning digital humanities, information studies, American studies, fan studies, cultural studies, media studies, and games studies, the Understanding Digital Culture institute and its open-access modules enable sharing ideas and methods for using digital technologies to advance humanities research and teaching. Specifically, we provided resources, training, and, during the institute proper, a community of collaborators to engage both computational network and data analysis tools and the ethics and best practices of using the web as a site of research.

## Origins and Goals

There has been growing awareness of the need for humanist inquiry into the internet platforms and communities driving contemporary culture. From fan communities and discourse about works of literature to meme-makers skewering current events, online spaces enable readership, creation, circulation, and transformation of humanist texts—and the active making and remaking of public history. However, much internet research is driven by computational approaches without also being rigorously grounded in theories of culture and textual production. Navigating this space can be particularly daunting to early-career humanities scholars. This is where we have sought to intervene, both through the formal Institute for Advanced Topics in the Digital Humanities and the collection and publication of an open access edition of the materials.

The NEH Institute on Understanding Digital Culture was initially planned to take place in Orlando, Florida on the University of Central Florida's Downtown campus from June 1 to June 5, 2020. Twenty-five participants, nine instructors, and two graduate students, plus any additional volunteers, would spend those five days attending workshops on digital ethics, data collection, and bot-making; exploring downtown and greater Orlando; and networking with a group of scholars from around the nation and the world. However, after admitting participants to the institute, the growing Sars-CoV-2 (COVID-19) pandemic made an in-person institute untenable. After soliciting feedback from participants and instructors about whether to proceed in 2020 with an online conference or reschedule for a later date, the organizers decided at the beginning of April to hold the institute in June as scheduled, using both synchronous and asynchronous content.

Here we summarize the institute's accomplishments as well as the challenges of the crisis migration to online, and their implications for future events of this kind. Given the institute's original emphasis on examining digital culture, the organizers saw a unique opportunity to find synergies between those goals and the new platforms, albeit under serious constraints given the pandemic's dramatic impact on event planning. Overall, we hope this provides a resource for other organizers attempting to navigate the difficulties of remote community instruction.

# Workshop Overview

## Activities

Materials for the workshop were compiled for a timeframe of five weeks, with four weeks of preparation and a one-week intensive workshop. The unique constraints of the workshop, both in terms of time and the shift to the digital modality, resulted in frontloading the readings and software installation instructions in order to let participants hit the ground running for the formal institute period. In the Humanities Commons release of the materials, we have reorganized the content into five thematic modules, integrating scholarship with tutorials and low-stakes assignments to make them more accessible and adaptable. The full text of the syllabus can be found in the Appendix as well as on the Humanities Commons website (shown in Figure 1 and available at: <https://understandingdigitalculture.hcommons.org/>).

**UNDERSTANDING DIGITAL CULTURE**      OVERVIEW   SYLLABUS   MODULES   ASSIGNMENTS

**COURSE NAME**  
**Understanding Digital Culture**

**INSTRUCTOR**  
**Dr. Anastasia Salter & Dr. Mel Stanfill, UCF**  
 Faculty: Dr. Amy Larner Giroux, Dr. Stephanie Vie, Dr. Jennifer de Winter, Dr. Leonardo Flores, Dr. Bridget Blodgett, Dr. Catherine Knight Steele, and Dr. Louise Kane. Graduate Assistants: Rachel Winter and Lauren Rouse

**COURSE DESCRIPTION**  
*Understanding Digital Culture: Humanist Lenses for Internet Research*, a transdisciplinary NEH-funded Advanced Topics in the Digital Humanities Institute hosted by the University of Central Florida, was held June 1-5, 2020 virtually due to COVID-19. *Understanding Digital Culture* provided resources, training, and a community of collaborators to engage both computational network and data analysis tools and the ethics and best practices of using the web as a site of research. This course is the open-access version of materials from the live institute.

**Course Materials**

**MODULES**

- Module 1.1: Intro to Platforms
- Module 1.2: Twitter and YouTube
- Module 1.3: Reddit and GitHub
- Module 2.1: Intro to Digital Ethics
- Module 2.2: Platform Literacy
- Module 2.3: Best Practices
- Module 3.1: Intro to Data Tools
- Module 3.2: Twitter and YouTube
- Module 3.3: Reddit and GitHub
- Module 3.4: Document-Driven Research
- Module 4.1: Intro to Data Visualization
- Module 4.2: Intro to Orange
- Module 4.3: Intro to Gephi
- Module 4.4: Data Analysis
- Module 5.1: Intro and Making Bots

**INSTITUTE SUMMARY**

There has been growing awareness of the need for humanist inquiry into the internet platforms and communities driving contemporary culture. From fan communities and discourse about works of literature to meme-makers skewering cultural objects, online spaces enable readership, creation, circulation, and transformation of humanist texts—and the active making and remaking of public history.

However, much internet research is driven by computational approaches without also being rigorously grounded in theories of culture and textual production. Navigating this space can be particularly daunting to early-career humanities scholars. This is where we seek to intervene.

Figure 1. The "Understanding Digital Culture" Humanities Commons Resource

As the purpose of the workshop was to familiarize participants with methods of digital research, they were encouraged to come prepared with a topic of interest. In Module One: Platforms, Dr. Jennifer deWinter introduces participants to the concept of platforms, as well as some of the specific platforms we engage in the workshop: Twitter, YouTube, reddit, and GitHub. Throughout this module, participants are also asked to refine their research question using the Research Question Flowchart; by the end of Module One each participant should have a specific, well-defined research question.

Module Two: Ethics of Digital Research incorporates materials that introduce participants to the ethical issues related to web research. Dr. Catherine Knight Steele provides an overview of ethical considerations of the field at large, and requires participants to critically interrogate their own assumptions regarding privacy and the web. Addressing this topic from an institutional standpoint, Dr. Bridget Blodgett's materials help familiarize participants with the requirements and process of Institutional Review Boards.

In Module Three: Data Collection, participants are introduced to scraping tools for a variety of platforms (Drs. Mel Stanfill and Anastasia Salter), as well as the method of document-driven research (Dr. Louise Kane). As participants work through this module, they are provided with numerous tools for collecting the data necessary to pursue their research questions. While Modules One and Two focus more on familiarizing participants with existing knowledge and scholarship in the field, Module Three marks a shift to increasing focus on individual research.

Similarly, Module Four: Visualization and Analysis, focuses largely on providing participants with options for interacting with their data after its collection. This module incorporates low-tech approaches like creating a concept map by hand, as well as instructions for installing and using more complex analysis tools like Orange and Gephi. Dr. Stephanie Vie discusses some of the challenges of analyzing and publishing about Twitter data. Drs. Vie and deWinter also provide an introduction to Critical Discourse Analysis, giving participants an additional method for analyzing their data.

Module Five: Bots (Dr. Leonardo Flores) then asks participants to create their own digital content. They are first introduced to the significance of bots in online traffic, which they may also have noticed in their own data collection and analysis. Module Five includes instructions for participants to create their own bots, as well as additional materials for further bot development and the addition of images.

## Assignments

Assignments during the workshop were intended to facilitate communication and a sense of community among members, provide practice with the tools and methods, and aid participants in pursuing their research questions. These included:

*Discussions.* The online workshop featured small research groups, each with a pair of mentors, with whom participants were expected to communicate throughout the workshop. To mimic this engagement in the published materials, we have replaced the daily "check-ins" with discussion assignments aimed at facilitating communication

between participants while providing instructors with insight into the progress of participants.

*Data Scraping.* The modules teach three different data scraping procedures, with the published materials including assignments for students to submit screenshots that demonstrate their progress. These assignments increase in difficulty sequentially, with each scaffolding the next. First, participants will use Google Sheets to scrape data from Twitter or reddit. The second data scraping assignment asks participants to clone a GitHub repository and scrape a subreddit. Finally, participants will scrape either Instagram, Facebook, or Archive of Our Own using a command line scraper.

*Visualization.* Participants are asked to create a visualization from the data gathered about their research question. They can choose either Gephi or Orange for their visualization; alongside their visualization, participants will justify their choice of visualization software and explain what they learned about their research question through creating the visualization. In the workshop proper, this assignment ensured that participants were able to begin the analysis of their data, giving them a potential direction to pursue after the conclusion of the workshop.

*Bots.* The final assignment requires participants to create their own Twitter bot using the Cheap Bots Done Quick tool. In the process of creating their Twitter bots, participants are asked to reflect on the impact of bots on content circulation and think critically about the process and purpose of creating their own bot.

## Tools

The original workshop was focused on open source, freely available tools that researchers would be able to use for their work moving forward. Given that, the migration was easier than it might otherwise have been, as participants could install the necessary tools on their own computers without additional software costs.

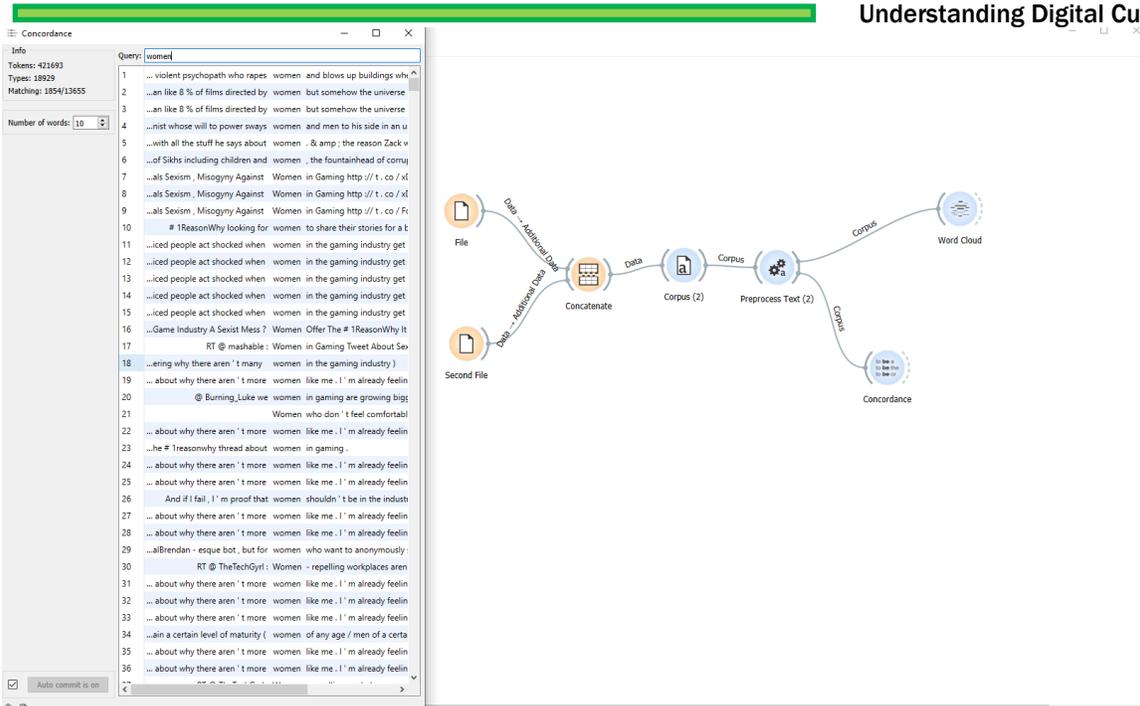


Figure 2. A sample workflow for Twitter data analysis in Orange

Orange. Orange (shown in Figure 2) is an open-source machine learning and data visualization application. Using a .csv file or a Google Sheet (such as a Twitter Archiving Google Sheet [TAGS] repository), Orange can create visualizations like box and scatter plots, or can be used for sentiment analysis and visualization of bodies of text (such as collected tweets). In addition to being free of charge and having a graphical user interface (rather than tools that require scripting), the advantage of Orange is its wide array of different tools, or widgets. Of particular interest to the NEH Institute was the Text Mining tools, which can be used to create word clouds, analyze sentiment, and create profiles of individual tweets. Orange is useful both for understanding an online phenomenon holistically in the aggregate and interacting with specific elements of collected data like keywords.

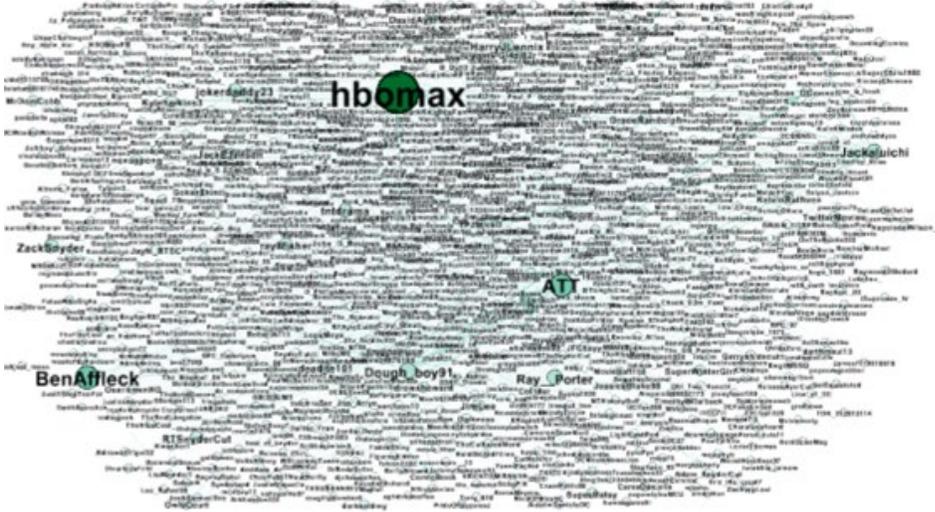


Figure 3. An example of mapping social media conversation in Gephi

*Gephi.* Gephi (shown in Figure 3) is a free, open-source software for visualizing graphs and networks. In the institute materials, we focused on using it with social media data, particularly exports from the YouTube scraper, which exported in the native .gxf format and did not require data formatting or cleaning, in order to let participants jump right in to trying out the tool. However, we showed them how to prepare a table of nodes and edges out of any data. Gephi, like Orange, has many features. In the institute materials, we focused on the number of connections in the network, the centrality of nodes in the network, and using node size, color, and layout to see important features of the data.

*Python.* Python is a programming language that is widely used in open-source data scraping tools and powers the tools in Module 3.3: Advanced Data Scraping. Our usage of Python focused on the modification of existing scripts and the configuration of data collection requests using Application Programming Interface [API] access, which enables collecting data directly from social media platforms. One of the central difficulties of these tools is gaining comfort with command line utilities, which was a secondary goal of the advanced modules of the workshop.

## Platforms

In the pre-work portion of the institute, as well as during the live institute, we used one synchronous platform, Zoom, and two semisynchronous platforms, Slack and Twitter. Each of these platforms had their own affordances in bringing the participants, faculty, and staff together to discuss both the materials in the institute and research projects that were being developed alongside the institute. As one participant noted, “The different platforms served different purposes: emails for reminders on the next event, Zoom for the live calls, Slack for communication between the different teams.” This is perhaps one of the greatest challenges presented by this type of learning, and made more difficult in this instance by the relatively short lead-up to the conversion.



Figure 4. A Screenshot of a live session on Zoom

*Zoom.* We used Zoom (see Figure 4), a video conferencing platform, each day during the live institute. All of the participants and instructors gathered online once a day for an

hour. In these sessions, first, we discussed the assignments and materials from that day. Second, five to seven participants volunteered each day to share their research projects or questions and the implications of that day's activities on their work. Finally, we used Zoom calls for participants to ask questions to the instructors. Questions were submitted ahead of time to a channel on Slack, pulled from the pre-institute survey, or asked spontaneously. Multiple participants indicated that they appreciated the daily Zoom session, and would have liked to also have calls with the members of their research groups.

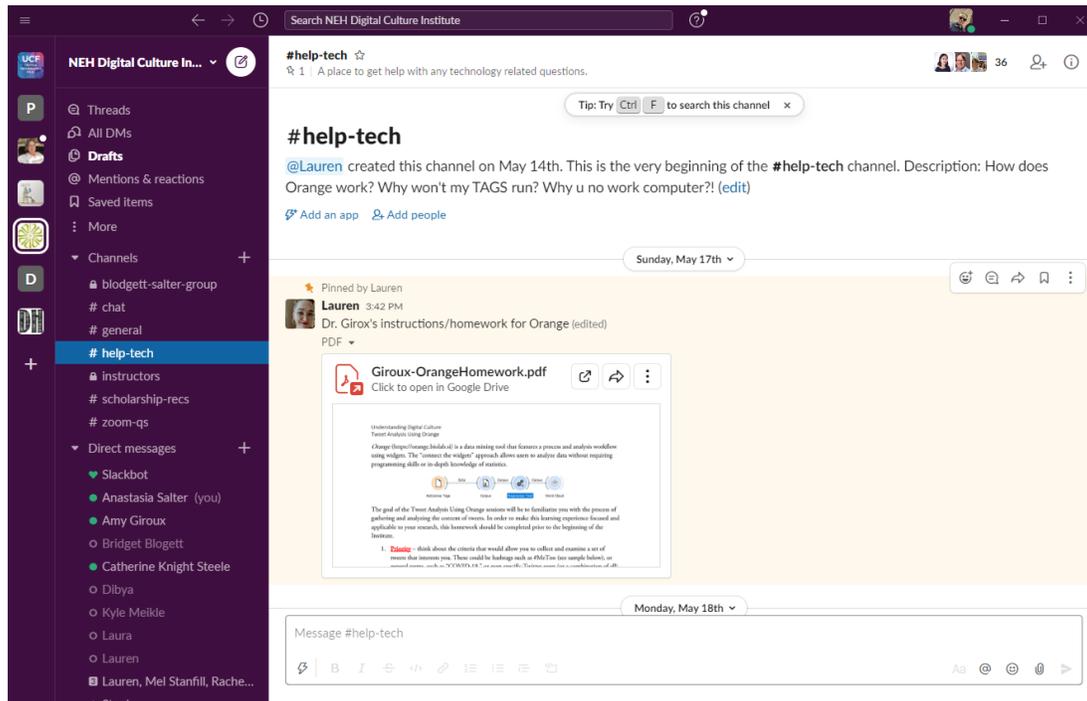


Figure 5. A screenshot of the asynchronous Slack configuration

**Slack.** Slack is typically considered a business communication platform, and is organized into chat-room style channels, direct messages, private groups, and audio/video calls. We primarily used Slack during the live portion of the institute as a space for participants to connect with their assigned instructors/research groups and other participants in general, as shown in Figure 5. Slack was also used as a place for virtual tech support with tools and coding, to share scholarly source recommendations, and to facilitate less formal chats between participants. One participant noted that “I felt the Slack was the best mode of communication we had during the institute - especially the tech-help channel - without it I would have been so so so lost. Of course what made that work so well is that there were instructors online all day!”

**Twitter.** We used the social media platform Twitter to bring together public facing posts from instructors and participants under one hashtag, #NEHNetResearch. The hashtag was a place for participants to share their work from the institute with their own followers and interested observers; some participants shared the bots that they created in the Twitter hashtag, while others posted thoughts on the material for that day. The graduate student workers also used the Twitter hashtag space as a place to build community, such as by asking participants to share pets at home and summer reading lists, and post other planned content.

Figure 6. Primary Institute Materials on Google Classroom

*Google Classroom.* In developing online pre-institute materials, the staff initially wanted to use the Canvas learning management system used by UCF. However, due to the COVID-19 pandemic and the demands on the LMS staff of an all-virtual summer semester, we were unable to secure a Canvas instance. Therefore, we used Google Classroom, a free, open-access platform that is part of the Google suite, as the platform for asynchronous content, following the organization shown in Figure 6. Google Classroom was used primarily to host static materials. This began with pre-Institute readings the instructors provided for participants as background material, as well as tutorials on platforms that would be used in the institute and installation guidelines for software. In the preparation weeks, the content mainly focused on introducing participants to what digital culture is as a concept and area of inquiry and how Internet research is typically conducted (Appendix B).

During the institute week, we used Google Classroom to post the lessons from the instructors such as videos, slides, and written instructions. Instructors used a variety of options for student response, from using the native Google Classroom comment feature to directing participants to post in Google folders hosted by the Classroom space or share with their groups on Slack. While having these different options helps us assess their benefits for future online institutes, not setting one consistent mechanism for all assignments did create confusion among participants, as noted by one participant who “wasn't sure where to post deliverables so that could have been made a little more clear.”

Finally, we used Google Classroom to host recorded Zoom videos and Slack message archives after the Institute was finished. Participants are still able to access the Google Classroom, though access is limited to participants and instructors, unlike the subsequently created Humanities Commons archive.

## Team

### Organizers

Dr. Anastasia Salter is the Director of Graduate Programs for the College of Arts and Humanities, including the innovative interdisciplinary doctoral program in Texts & Technology., and author of five books that draw on humanities methods alongside computational discourse and subjects, including most recently *Adventure Games: Playing the Outsider* (Bloomsbury 2019, w/ Aaron Reed and John Murray), *Toxic Geek Masculinity in Media* (Palgrave Macmillan 2017, w/ Bridget Blodgett), and *Jane Jensen: Gabriel Knight, Adventure Games, Hidden Objects* (Bloomsbury 2017).

Dr. Mel Stanfill is an assistant professor with a joint appointment in the Texts & Technology PhD program and the Department of English. They have published about internet research methods and using internet research methods in venues such as *New Media and Society* and the *Journal of Film and Video*, and authored *Exploiting Fandom: How the Media Industry Seeks to Manipulate Fans* (University of Iowa Press 2019). Dr. Stanfill is Program Coordinator of an interdisciplinary Digital Humanities PhD program.

### Faculty

Dr. Amy Lerner Giroux is Associate Director of UCF's Center for Humanities and Digital Research and a Digital Historian for the National Cemetery Administration. She received her doctorate in Texts and Technology from UCF and has over 30 years' experience in software development and project management. Dr. Giroux assists faculty and graduate students on their research projects by leveraging open-source programs such as Orange and Gephi. She has analyzed historic newspapers using Orange to evaluate the discourse surrounding immigrant farm workers in the early 20th century.

Dr. Stephanie Vie is department chair of the Department of Writing and Rhetoric (DWR) at the University of Central Florida in Orlando. She has been interviewed by national and international media outlets regarding social media, privacy, and the use of hashtags for digital activist efforts. Her research has appeared in such journals as *Composition Forum*; *Computers and Composition*; *Computers and Composition Online*; *First Monday*; *Kairos: Rhetoric, Technology, and Pedagogy*; and *Technical Communication Quarterly*, among others. She co-edited *Social Writing/Social Media* (The WAC Clearinghouse/University Press of Colorado, 2017).

Dr. Jennifer de Winter has long been interested in how culture (which is local) moves internationally. She has spent a number of years analyzing anime, comics, and computer games as part of global media flows in order to understand how concepts such as "art," "culture," and "entertainment" are negotiated. In 2003, Professor deWinter joined the Learning Games Initiative, a group of scholars and game designers dedicated to the general study of games and the use of games to teach concepts and skills in particular. Since joining WPI, she has been an active faculty member in the Interactive Media Game Development program, advising students and teaching courses in game theory and practice.

Dr. Leonardo Flores is Chairperson and Professor in the Department of English at Appalachian State University and Vice President of the Electronic Literature Organization. He was the 2012-2013 Fulbright Scholar in Digital Culture at the University of Bergen in Norway. His research

areas are electronic literature and its preservation via criticism, documentation, and digital archives. He is the creator of a scholarly blogging project titled I ❤️ E-Poetry, co-editor of the Electronic Literature Collection, Volume 3, and has a Spanish language e-lit column in 80 Grados. He is currently co-editing the first Anthology of Latin American Electronic Literature. For more information on his current work, visit <http://leonardoflores.net>. His passion for e-lit and bots shines through in his Twitter account @Leonardo\_UPRM.

Dr. Bridget Blodgett is an associate professor and chair of the Division of Science, Information Arts, and Technology at the University of Baltimore. Her research analyzes Internet culture and the social impacts thereof on offline life. Her current research takes a critical eye to online game communities regarding gender, inclusiveness, and identity. *Toxic Geek Masculinity in Media* (with Anastasia Salter) was released in 2017 by Palgrave MacMillan and is the summation of this work to date.

Dr. Catherine Knight Steele, a scholar of race, gender and media with specific focus on African American culture and discourse in traditional and new media, is Assistant Professor of Communication at the University of Maryland. Her research has appeared in such journals as Television and New Media, Social Media + Society and Information, Communication and Society. She is currently working on a monograph about digital black feminism and new media technologies. Dr. Steele also served as the first Project Director for the Andrew W. Mellon Foundation-funded Synergies among Digital Humanities and African American History and Culture project (AADHum).

Dr. Louise Kane is Assistant Professor of Global Modernisms in the Department of English at UCF. Her dissertation proposed the use of approaches drawn from Digital Humanities, math, and network analysis to theorize new ways of reading early 1900s magazines and 'unreadable' archival materials. Her research on digital rhetorics, network visualization, and computer science related approaches to literary study has been published in The Journal for Modern Periodical Studies and the forthcoming Teaching Modernist Women Writers MLA textbook.

### Staff

UCF graduate students Rachel Winter and Lauren Rouse assisted Drs. Salter and Stanfill in anonymizing the applications; gathering and testing digital resources; creating tutorials for software and platforms; posting institute content to Twitter, Google classroom, and Humanities Commons; emailing and assisting participants with questions; captioning and editing videos from the institute; and other general office duties.

## Participants

Promotion for the Institute began in November 2019. The institute was promoted through the Association of Internet Researchers (AoIR) listserv, the Society for Cinema and Media Studies Fan and Audience Studies Scholarly Interest Group and Queer and Trans Caucus, a network of African American Digital Humanities scholars, on Twitter, and via the NEH website. Drs. Salter and Stanfill also worked with the technology team at UCF and a PhD student intern to develop a website, which provided an overview of the institute and information about how to apply. To apply, participants were asked to submit a CV and a brief statement of no more than 2 single-spaced pages addressing their internet-driven research project concept and goals for

participating in the workshop. Participants were also notified that they would receive a stipend of \$1250 to support their travel and participation expenses. In total, we received 124 applications from 23 U.S. states and one territory as well as 14 other countries.

### Participant Selection

Our selection criteria for participants followed a fundamental principle to build inclusive communities of inquiry. First, recruitment emphasized graduate students and early career scholars, though tenured faculty were eligible to apply. Second, to promote the goal of introducing digital humanities topics to scholars who lack digital expertise, no previous experience in the area was required to apply, and the workshop sessions were structured to assume no prior knowledge of either the technology or theory in order to allow for the broadest range of participation. Third, the selection emphasized supporting projects that draw attention to marginalized communities and underserved works and populations within the humanities. Fourth, to support those from underfunded institutions or precarious positions, we dedicated the bulk of the proposed budget to participant stipends.

After the application period closed, the applications were anonymized by the PhD student assistants. Each workshop instructor, including co-directors Anastasia Salter and Mel Stanfill, was assigned one third of the applicants to review, so that each applicant was reviewed by three instructors. The reviewers received an anonymized summary of the applicant’s vita and a copy of their project statement. Instructors were asked to consider the potential impact and reach of proposed work when reviewing participant applications.

Out of the 25 participants that were rated most highly, six were from outside of the United States (two from Europe, one from Brazil, one from Nigeria, one from South Korea, and one from India).

	5+ years post PhD	1-5 years post PhD	Graduate Student
<i>Initial Acceptances</i>	2	8	15
<i>Alternates</i>	-	2	3
<i>Final Participants</i>	1	9	15

Participants were notified on February 17 and given a week to respond with their intention to attend. Participants were notified in mid-March about the possibility of a transition to an online institute and surveyed about their preferences. Taking collective preferences into account, they were notified in early April that the institute would be moved online.

## Project Outcomes and Evaluation

Given the major transitions involved in converting the project from our original planned format to a fully-online institute, post-institute evaluation focused on both institute content and delivery methods. Notably, the transition proved more challenging to faculty adapting their instruction than for participants, reflective of similar challenges across higher education in the wake of COVID-19.

## Participant Feedback

In the week following the Institute, participants were emailed with a Qualtrics survey link asking for their feedback. 21 out of 25 participants responded to the survey. Overall, 15 participants were extremely satisfied with the Institute, and 6 were moderately satisfied. As one noted, “I was shocked at how smoothly the Institute went given the transition to online. The activities leading up to the Institute were particularly helpful and made the actual week run so nicely.” Participants found that the preparing weeks leading up to the institute allowed for them to feel more comfortable with topics covered in the actual institute, and that the Slack and the Zoom meetings were beneficial to think about their research questions and get feedback from the larger group. One participant noted that the daily Zoom calls during the Institute were beneficial as they allowed for a look into the process of developing research across interdisciplinary backgrounds:

I appreciated the instructors being able to point to specific examples from their own work (past and present) which really illuminated our discussions with concrete research projects. I also appreciated some of the "translation" work that happened as instructors with different disciplinary backgrounds were able to show how various concepts translated (or didn't translate) across scholarly areas of study.

Finally, other students noted that the conversations that took place during the institute helped and inspired them to return to their research projects that had been put on hold due to the COVID-19 pandemic.

In general, participants were also extremely satisfied with the platforms used for the institute, as well as the content. Twitter, Slack, Zoom, and emails each received 17 responses for extremely satisfied; Google Classroom received 11 responses for the same satisfaction rating. However, some participants did comment about the challenge of using multiple platforms: “At first it was a bit overwhelming figuring out which platform do I need to focus on, which is the primary hub.” Most participants felt that the Slack platform brought all the conversations together, as some noted that it was difficult in the weeks leading up to the institute (before Slack was opened to them) to know where they should focus their participation and interactions.

Overall, for the platforms, many of the students disliked how Google Classroom was formatted and found the platform difficult to work with. One participant noted that the Google Classroom felt “messy at times” and they were unsure of where to post answers to questions or assignments from instructors. Similarly, some participants were dissatisfied with the way that Zoom calls worked, writing that a more effective model would be to hold smaller Zoom calls in the participant groups and then turn to the large group daily call afterwards. However, due to the differences in time zones, as well as participant schedules, child/eldercare, and other unforeseen issues, such a model may prove difficult to organize for a virtual institute.

As for the institute’s content, participants overwhelmingly commented favorably on the variety of tools provided. As one representative comment put it, “The contents were super helpful and abundant. They provide various tools to help with digital humanities research and I'm glad I have so much to choose from.” Some participants did feel that they couldn’t complete

everything that they needed to in such a short amount of time or that the institute provided too much information to take in, however.

Participants were overwhelmingly either extremely or moderately satisfied (19 to 20 of 21 responses in each category) with the data collection, analysis, and conceptual tools. One participant wrote:

I only wish we had more time! I still feel like I only barely scratched the surface with all of the materials from the institute, despite spending the entire week making my way through the materials. I'm sure all of the content will be applicable to my work, but I definitely have more work to learn the tools and ideas in the institute - I'm sure I'd feel this way if we were 'in person,' though. I appreciate that these tools and ideas take a long time and much attention to use effectively.

Some of this feedback reflects the increased challenges of the Institute's restructuring: in the original proposal, participants would have received theoretical and conceptual grounding materials in the weeks prior to the institute, and been introduced to the tools through hands-on experience in the pre-configured, stable computer labs rather than attempting to install and learn the tools at the same time. Then, take-home assignments following the institute would have walked participants through the complex process of configuring these tools for use on their own computers at a slower pace. Instead, all participants needed to do substantial tools installation prior to the institute, and those who did not have time available to invest (or had environments that were difficult to configure, such as Apple computers) were at a disadvantage throughout. This inequity, and these additional challenges, are the same as those faced by technology-dependent teaching around the world when face-to-face lab time is reduced or eliminated.

Participants were less consistently satisfied with the interactions with instructors, hosts, and other participants. On the positive side, one noted that:

I felt genuinely supported and encouraged by all of the instructors in the Institute. I feel that for myself and many other participants, often coming from backgrounds where our type of research isn't being done, isn't fully understood, or isn't being respected, this was a much needed confidence boost and it did me so much good, both professionally and personally.

On the other hand, some participants were dissatisfied with the engagement especially from their assigned research groups with instructors. We had considered both time-zone based groups and subject-matter based groups, and ultimately chose subject matter as the way to organize groups, but this may have hindered the formation of community.

Participants also wanted more interaction with the other participants in the institute. One participant noted that their small research group was inactive, which affected the way that they interacted with the institute as a whole. They wrote:

I think the instructors did all they could to help participants feel connected throughout our time in the Institute, but I do think it's hard to replace the connectivity of the one-

on-one. I'm especially disappointed that I didn't really get to talk one-on-one with any of the instructors or participants.

This was a sentiment shared by several participants. While we, as staff members, encouraged participants to reach out to one another and their instructors, there was clearly some mismatch between the amount of interaction desired by different individuals. Some participants suggested that in the future, the Zoom breakout rooms should be utilized, while others asked that they be put into their institute research groups during the preparation weeks (we put them into their groups during Week 4 of pre-institute content), so that they could better connect with one another and form deeper research connections.

Finally, some participants also noted that they wanted continued interactions after the institute was over, which we hope to continue through the Twitter hashtag and Humanities Commons.

To summarize, many participants felt that the institute provided them with an introduction to digital culture and gave them space to explore their research questions and various materials and software as presented by instructors. Overall, participants indicated that after doing the work of the institute they felt moderately comfortable with the tools including data visualization techniques, coding and programming, and collecting data from social media sites. However, the general consensus was that participants wished for more one-on-one time with other participants (one of the hardest elements of face-to-face to replicate) and their instructors, and for more time in general to develop their skills with the tools.

## Faculty Feedback

Like their participant counterparts, the faculty found that the platforms that worked best were Zoom and email (4 out of 6 respondents to the survey answered that they were extremely satisfied with both). Similar again to the participants, they found that Google Classroom was not the best platform for the Institute (1 found it to be extremely satisfying; 2, moderately satisfying; 1 slightly satisfied; 1 not satisfied nor dissatisfied; and 1 moderately dissatisfied). Unlike the participants, the faculty were less satisfied with Slack, noting that in the future, participants should have strict instructions of where and what to post on Slack channels, as faculty found it hard to find information, assignments, and questions on the various Slack channels. However, the faculty did note that participants were more successful with the platform for interactions, one stating, "The participants seemed to get a lot out of the Slack site and communicate there, and the low-key conversations about hobbies etc. seemed to draw them out, which was good."

Furthermore, like the participants, the faculty found that there was a lot of content to cover, which made it difficult to cover everything and forced participants to pick and choose what they wanted to learn. All instructors were either extremely or moderately satisfied with the content covered, though one noted that there were missed opportunities to take advantage of platforms and depart more from the "live week" model. Despite these two areas of growth, the instructors felt that the content that they developed was relevant to their own research fields and felt that they could provide personalized feedback to the participants based on this.

Finally, the instructors felt that there could have been more interaction from both their individual group participants and participants across the institute. Some instructors recommended individual Zoom meetings within research groups, which one instructor completed throughout the institute week and felt that it allowed for some one-on-one time that participants missed out from the institute being virtual. Others wanted more time for informal interactions with the participants that took place in some of the channels on Slack and Twitter. They suggested less structured Zoom meetings, where participants could vent about their problems, discuss non-research related work, et cetera.

Overall, most instructors were satisfied with the institute (with 1 being neither satisfied nor dissatisfied). The instructors' feedback often mirrored that of the participants, including thoughts on the platforms used for the Institute and the interpersonal communication between participants and their instructors. Faculty agreed that students may have been overloaded by the wealth of information from the institute and gave the opinion that this institute content take place over two weeks in the future or have been rescheduled to better fit an online format. Further, faculty argued for more synchronous content that would have allowed for better communication of what was expected of the participants during the institute, which is an argument for structuring future virtual institutions around time zones and pre-scheduled expectations of synchronous meetings (which was impossible to plan for in a crisis-induced pivot to a virtual format, but would enable much more connection in the future).

## Staff Feedback

The instructors' feedback coupled with the feedback from the students is beneficial in viewing our own feedback as planners and organizers, which has allowed for us to come to several conclusions. Like the participants and faculty, we agree that Google Classroom was not the best platform to use for this institute. While it was readily accessible, it did not provide some key functionality that was really needed for the institute. Because of the lack of a discussion or forum space on the platform, for example, we had to turn to Slack for that kind of interaction, which sometimes led to platform overload and confusion about where exactly participants should post or interact, which would not have occurred had we been able to contain the entire institute in Canvas as we had initially intended.

## Day Three: Ethics of Social Media Research

Intro to Orange (Amy Giroux) Edited Jun 2

Day Three Overview Posted Jun 3

Analyzing Twitter Data: Methods and E... 17 Posted Jun 2

View the video below, discussing some potential methodologies for and challenges with analyzing Twitter data. Following, consider the questions below - again, you may want to make notes for easier discussion during the Slack check-in.

Reflect on the case study: If you gather Twitter data in 2020 and you go back to that corpus of data later on in 2021 or beyond, but some of the tweets have since been deleted, are there any issues you think that might emerge for you as a researcher? Think particularly about issues you might encounter if you are planning to publish based on the data you gathered.

AntConc: <https://www.laurenceanthony.net/software/antconc/>  
 Text analysis with AntConc for social media: <https://tarciziosilva.com.br/blog/text-analysis-with-antconc-for-social-media-data-exploration-intro-files-and-settings/>  
 Atlas.ti: <https://atlasti.com/>

Vie\_Video\_2\_captioned\_t...  
Video

17 class comments

[View material](#)

Figure 7. An example of a module excerpt in Google Classroom

The Google Classroom was also not very user friendly, with an emphasis and organization that could be confusing (see Figure 7). For example, the question function, which we assumed would function similarly to discussion boards on other platforms, was not intuitive. At first, participants struggled with finding where they should actually answer the question (they needed to click on “view question” to see where to post), which led to some students posting on the main stream and clogging up that view for others. Further, as instructors, we were often unable to see from the student’s point of view, causing us to spend time looking for screenshots posted elsewhere online to see what a student might see.

Furthermore, everything on Google Classroom was linked to Google Drive. This had some upsides: it provided a place where all the documents could be easily saved and stored, and then re-uploaded onto Humanities Commons when the time came, and all the instructors had access to the folders. It also created difficulties in providing materials to the participants. The limitations of Drive restricted the types of documents that we could provide and the layouts that we could use when presenting the material, which prevented multimedia mixes of text and video that could have helped participants understand better.

There was also some struggle with making sure that we as the institute hosts were on the same page with the instructors, particularly after the modality change. We would recommend for future institute hosts that when a project goes through a major change like the one we experienced, a new agreement that clearly lays out the necessary duties and timelines would be helpful for avoiding confusion on the part of instructors.

Additionally, multiple external forces made the institute more challenging. As a baseline, the pressures of the COVID-19 pandemic, which caused us to go online in the first place, were present and complicated the experience of the participants, staff members, and faculty working through the institute. Additionally, the institute took place during the first upsurge of Black Lives Matter protests after the murder of George Floyd, which often made focusing on the institute and breaking away from reality during afternoon meetings very difficult. While we were hesitant to address this directly because of the limitations of the format, more direct discussion might have been helpful for centering participant needs.

Finally, the participation needed to be more structured in some places. We relied a lot on the participants initiating contact with one another and with their faculty members, and feedback suggested that some wanted clearer directions about when to interact or what kinds of interactions to expect. Additionally, while there is often a variety of engagement levels from students, we don't feel like we did as well as we could have with holding space for students who are less comfortable putting themselves out there and dialing back those who were inclined to demand a lot of attention—an ongoing challenge in any educational setting, but amplified by the change of format.

## Overall Takeaways

In planning a future institute under COVID-19 or similar constraints, there are several successes and struggles that other hosts may want to keep in mind. First, in choosing platforms for online or hybrid institutes, it is important to balance the negatives of having multiple platforms vs. having a platform that doesn't quite meet your needs. As we saw, the participants were sometimes overloaded with the number of places that they needed to check for their day-to-day activities. Using a more streamlined platform like Humanities Commons or Canvas, especially with a place for participants to interact with one another, would be beneficial to creating relationships and networking. Many of the participants enjoyed Slack, so spending more time developing the channels on the platform and inserting resources could also be a good strategy. Even in a nonvirtual format, Slack has many affordances that platforms like Twitter or Facebook might not offer at a live event, like the ability to connect with everyone at the event through channels instead of having to search through conference hashtags.

Online institutes also present opportunities and challenges with respect to timing. On one hand, an asynchronous design for an institute widens participation not only for those in different time zones, but also those with care responsibilities who may need to time-shift. On the other hand, having all participants engaging in the same time zone, even at a distance through platforms like Slack, has tremendous benefits for building community, and supporting scholars who may not have a local research community was one of the goals of the institute. Third, the shift to online and conducting an institute during a pandemic created a tension between providing the knowledge and interaction we had planned and recognizing that we did not have participants' and instructors' full attention amid their everyday responsibilities. One shift that we made was to increase the flexibility of the institute, through making it asynchronous but also deemphasizing deliverables in favor of engagement as the primary end. This was helpful for many, but left others unsure what the expectations were, and working to have a clearer shared sense of what the institute was and how it was going to work would be essential for future institutes of this type.

## Lessons

POSTED ON AUGUST 4, 2020 | [Leave a Comment](#)

### Module 1.1: Intro to Platforms

Module 1.1: Intro to Platforms will introduce you to the concept of platforms and how platforms can impact the activity of users. We recommend the following readings for contextualizing platforms: Gillespie, Tarleton. "The Politics of 'Platforms.'" *New Media & Society* 12, no. 3 (2010). <https://doi.org/10.1177%2F1461444809342738> Orgad, Shani. "How Can Researchers Make Sense of the Issues involved in [...]"

POSTED ON AUGUST 3, 2020 | [Leave a Comment](#)

### Module 1.2: Twitter and YouTube

This second part of Module One is designed to introduce you to the Twitter and YouTube platforms, with instructions and tips on creating the necessary accounts. Before beginning this module, read the following articles, which will provide you with context regarding existing research in digital culture. Navar-Gill, Annemarie, and Mel Stanfill. "We Shouldn't Have to [...]"

POSTED ON AUGUST 2, 2020 | [Leave a Comment](#)

### Module 1.3: Reddit and GitHub

This third and final section of Module One continues the introduction of the platforms we'll be encountering throughout the workshop. For the Reddit and GitHub section of Module One, read the following articles, which will provide you with context regarding the challenges of working with social data. Manovich, Lev. "Trending: The Promises and Challenges of [...]"

#### ALL MODULES

Module 1.1: Intro to Platforms

Module 1.2: Twitter and YouTube

Module 1.3: Reddit and GitHub

Module 2.1: Intro to Digital Ethics

Module 2.2: Platform Literacy

Module 2.3: Best Practices

Module 3.1: Intro to Data Tools

Module 3.2: Twitter and YouTube

Module 3.3: Reddit and GitHub

Module 3.4: Document-Driven Research

Module 4.1: Intro to Data Visualization

Module 4.2: Intro to Orange

Module 4.3: Intro to Gephi

Module 4.4: Data Analysis

Module 5.1: Intro and Making Bots

Figure 8. Modules for Future Use on Humanities Commons

With that said, some of the greatest value of a virtual institute is in the lasting accessibility of materials: while we had always planned to make tutorials and similar activities open access following the Institute, the virtual format allowed us to build a much more robust set of materials for future course integration. As shown in Figure 8, these modules were designed with classroom or workshop use in mind, and include recommended readings and assignments throughout to allow for self-paced learning or use by others in educational settings. These resources also address participant concerns regarding the limited timeframe of an intensive institute by providing a route for ongoing access.

# Appendix: Workshop Syllabus

NEH Understanding Digital Culture: Humanist Lenses for Internet Research  
Workshop Syllabus  
Summer 2020  
University of Central Florida

## Description

From fan communities and discourse about works of literature to meme-makers skewering cultural objects, online spaces enable readership, creation, circulation, and transformation of humanist texts - and the active making and remaking of public history. However, much internet research is driven by computational approaches without also being rigorously grounded in theories of culture and textual production. Navigating this space can be particularly daunting to early-career humanities scholars, and therefore the Understanding Digital Culture workshop, funded by the National Endowment for the Humanities, fostered a transdisciplinary approach to provide resources, training, and a community of collaborators designed to engage both computational network and data analysis tools, as well as the ethics and best practices of web research.

The original one-week intensive workshop has been translated into 15 modules designed to aid participants in defining and pursuing individual research questions. Throughout this workshop, participants will be introduced to readings intended to enhance their understanding of digital cultural research, as well as tools and approaches for both collecting and analyzing data from social platforms. The assignments for this workshop are scaffolded to familiarize participants with relevant scholarship, tools, and ethical considerations related to internet research.

All workshop materials and assignments can be found in the dedicated GitHub repository [here](#).

## Assignments

### *Discussions*

Participants will be expected to participate # asynchronous discussions with their assigned research group throughout the workshop. Participants will receive a prompt containing the specific details of the content they are expected to post (i.e. questions, progress, screenshots, etc.).

### *GitHub Repository Creation*

This assignment asks participants to demonstrate a basic understanding of the GitHub platform by creating a repository, writing and saving their research questions, and pushing their content to GitHub. Participants will then submit a link to their new repository.

### *Data Scraping*

Throughout the workshop, participants will be asked to practice using data scrapers for a variety of platforms, and to apply these tools to collect data for their research project. These assignments ask participants to submit two screenshots of their data gathering process for each assignment.

**Preliminary Data Collection.** For this assignment, participants will begin collecting the data they need to answer their research questions. Participants can choose to collect data from Twitter or Reddit using the [TAGs](#) tool, or from YouTube using [YouTube data tools](#).

**Reddit Scraping.** For this assignment, participants will use command line tools to scrape data from Reddit. Participants will need to install Python, clone a GitHub repository, and scrape a specific subreddit using a command of their creation.

**Advanced Scraping.** This assignment asks participants to choose between three potential scrapers ([Instagram](#), [Archive of Our Own](#), or [Facebook](#)), read the ReadMe, and perform a scrape using command line instructions.

### *Data Visualization*

Participants will be asked to create a visualization from the data they've gathered about their research question. They can choose either Gephi or Orange for their visualization; alongside their visualization, participants will justify their choice of visualization software and explain what they learned about their research question as a result of creating the visualization.

### *Making Bots*

Using instructions from Dr. Flores, participants will create their own bot, add images, and submit the bot's handle.

## Schedule

### *Platforms*

#### **Intro to Platforms**

##### *Readings:*

- Gillespie, Tarleton. "The Politics of 'Platforms.'" *New Media & Society* 12, no. 3 (2010). <https://doi.org/10.1177%2F1461444809342738>
- Orgad, Shani. "How Can Researchers Make Sense of the Issues Involved in Collecting and Interpreting Online and Offline Data?" In *Internet Inquiry: Conversations about Method*, edited by Annette Markham and Nancy K. Baym, 33-53. Los Angeles: Sage Publications, Inc., 2008.

##### *Materials:*

- Intro to Platforms (Jennifer deWinter; pdf)
- Intro to Platforms (Jennifer deWinter; mp4)
- A Platform Heuristic for Digital Humanities (Jennifer deWinter; pdf)
- Research Question Flow Chart

##### *Assignments:*

- Discussion: Research Question Flow Chart (pdf)

### **Twitter and YouTube**

##### *Readings:*

- Navar-Gill, Annemarie, and Mel Stanfill. "We Shouldn't Have to Trend to Make you Listen': Queer Fan Hashtag Campaigns as Production Interventions." *Journal of Film and Video*
- Steele, Catherine Knight. "Black Bloggers and their Varied Publics: The Everyday Politics of Black Discourse Online." *Television & New Media* 19, 2 (2018): 112-127. doi: 10.1177/1527476417709535

*Materials:*

Twitter

- Twitter Developer Account (pptx)
- Tweetdeck: An Introduction (pptx)

YouTube

- YouTube Intro and Account Creation (pptx)

*Assignments:*

- Discussion: Data Collection in Action (pdf)

**Reddit and GitHub**

*Readings:*

- Manovich, Lev. "Trending: The Promises and Challenges of Big Social Data." *Manovich.net*, 2011, <http://manovich.net/index.php/projects/trending-the-promises-and-the-challenges-of-big-social-data>
- Blodgett, Bridget, and Anastasia Salter. "Ghostbusters is for Boys: Understanding Geek Masculinity's Role in the Alt-Right." *Communication, Culture & Critique* 11(2018): 133-146. doi: 10.1093/ccc/tcx003.

*Materials:*

Reddit

- Reddit Throwaway Account (pptx)

GitHub

- Installing Git + VS Code (pdf)
- GitHub Tutorial (pptx)
- GitHub as a Platform (pptx)

*Assignments:*

- Git Demo (mp4)
- GitHub Repository Creation (pdf)

**Ethics of Digital Research**

**Intro to Digital Ethics**

*Readings:*

- franzke, aline shakti, Bechmann, Anja, Zimmer, Michael, Ess, Charles, and the Association of Internet Researchers. Internet research ethical guidelines 3.0. *Aoir.org*, 2020, <https://aoir.org/reports/ethics3.pdf>

**Materials:**

- Digital Ethics pt 1 (Catherine Knight Steele; mp4)
- Digital Ethics (Catherine Knight Steele; ppt)

**Assignments:**

- Discussion: Digital Ethics Activity pt 1 (Catherine Knight Steele; docx)

**Digital Ethics part 2****Readings:**

- Bailey, Moya. “#transform(ing)DH Writing and Research: An Autoethnography of Digital Humanities and Feminist Ethics.” *digital humanities quarterly* 9, no. 2 (2015). <http://www.digitalhumanities.org/dhq/vol/9/2/000209/000209.html>
- Spiro, Lisa. “‘This is why we fight’: Defining the Values of the Digital Humanities.” *Debates in the Digital Humanities*, edited by Matthew Gold, University of Minnesota Press, 2012, <https://dhdebates.gc.cuny.edu/read/untitled-88c11800-9446-469b-a3be-3fdb36bfd1e/section/9e014167-c688-43ab-8b12-0f6746095335>

**Materials:**

- Digital Ethics pt 2 (Catherine Knight Steele; mp4)

**Assignments:**

- Discussion: Digital Ethics Activity pt 2 (Catherine Knight Steele; docx)

**Digital Ethics part 3****Readings:**

- Florini, Sarah. “Introduction.” *Beyond Hashtags: Racial politics and Black Digital Networks*, New York University, 2019, [http://opensquare.nyupress.org/open-square-reader/cloud-reader/epub\\_content/9781479892464/ops/xhtml/florini-0007.xhtml#intro](http://opensquare.nyupress.org/open-square-reader/cloud-reader/epub_content/9781479892464/ops/xhtml/florini-0007.xhtml#intro)
- Florini, Sarah. “Methodological Appendix.” *Beyond Hashtags: Racial politics and Black Digital Networks*, New York University, 2019, [http://opensquare.nyupress.org/open-square-reader/cloud-reader/epub\\_content/9781479892464/ops/xhtml/florini-0014.xhtml#meth\\_app](http://opensquare.nyupress.org/open-square-reader/cloud-reader/epub_content/9781479892464/ops/xhtml/florini-0014.xhtml#meth_app)

**Materials:**

- Digital Ethics pt 3 & 4 (Catherine Knight Steele; mp4)
- Understanding IRBs (Bridget Blodgett; pptx)

**Assignments:**

- Discussion: Digital Ethics Activity pt 3 (Catherine Knight Steele; docx)

**Digital Research Methods****Intro to Data Tools****Readings:**

- Baym, Nancy K “What Constitutes Quality in Qualitative Internet Research?” In *Internet Inquiry: Conversations about Method*, edited by Nancy K. Baym and Annette M. Markham, 173-189. Thousand Oaks: Sage, 2009.

- Baym, Nancy K., and Annette M. Markham (eds). "Introduction: Making Smart Choices on Shifting Ground." In *Internet Inquiry: Conversations about Method*, vii-xix. Thousand Oaks: Sage, 2009.
- boyd, danah, and Kate Crawford. "Critical Questions for Big Data: Provocations for a Cultural, Technological and Scholarly Phenomenon." *Information, Communication & Society* 15, no. 5 (2012): 662-79.

*Materials:*

- NEH Data Tools (mp4)
- Social Media Research Tools (Google sheets)

*Assignments:*

- Discussion

**Data Tools: Twitter and YouTube**

*Readings:*

- Driscoll, Kevin, and Shawn Walker. "Working Within a Black Box: Transparency in the Collection and Production of Big Twitter Data." *International Journal of Communication* 8, (2014): 20.
- Jackson, Sarah J., and Brooke Foucault Welles. "Hijacking #myNYPD: Social Media Dissent and Networked Counterpublics." *Journal of Communication* 65, no. 6 (2015): 932-52.
- Ahmed, Wasim, Peter Bath, and Gianluca Demartini. "Using Twitter as a Data Source: An Overview of Ethical, Legal, and Methodological Challenges." In: *The Ethics of Online Research: Advances in Research Ethics and Integrity* (2), 79-107. Emerald, 2017.  
<http://dx.doi.org/10.1108/S2398-601820180000002004>

*Materials:*

Twitter

- TAGs Tutorial (Google slides)
- Twitter Data Scraping Tutorial (Amy Giroux; pdf)
- Twitter Scraper Slides (Amy Giroux; pdf)
- Gathering Twitter Data (Stephanie Vie; mp4)
- Advanced Twitter Data Collection (mp4)

YouTube

- Tools Tutorial: YouTube

*Assignments:*

- Preliminary Data Collection

**Data Tools: Reddit and GitHub**

*Readings:*

- Brock, Andre. "Critical Technocultural Discourse Analysis." *New Media & Society* 20, no. 3 (2018): 1012-30.
- Visconti, Amanda. "When they came down: Participating in crowdsourced documentation of racist statue removals." *Scholars' Lab*, 2020,

<https://scholarslab.lib.virginia.edu/blog/participating-in-statue-removal-history-crowdsourcing/>

### Materials:

#### Reddit

- Tools Tutorial: Reddit

#### GitHub

- GitHub Research (mp4)
- NEH GitHub Research Stage 1 (mp4)
- NEH GitHub Research Stage 2 (mp4)

### Assignments:

- Reddit Scraping
- Advanced Data Scraping

## Document Driven Research

### Readings:

- Bénel, Aurélien and Christophe Lejeune, Christophe. "Humanities 2.0: Documents, Interpretation and Intersubjectivity in the Digital Age." *International Journal of Web Based Communities* 5 (2019): 562-576.
- Drouin, Jeffrey. "Close- and Distant-Reading Modernism: Network Analysis, Text Mining, and Teaching the Little Review." *The Journal of Modern Periodical Studies: Special Issue Visualizing Periodical Networks* 5, 1 (2014): 110-135.
- Gitelman, Lisa. "Introduction: Paper Knowledge." In *Paper Knowledge: Toward a Media History of Documents*, 1-20. Duke UP, 2014.

### Assignments:

- Workshop Homework (Louise Kane; pdf)
- Research Methods Tasks

## Visualization/Analysis

### Intro to Data Visualization

#### Readings:

- Nantais, Joel. "Can You Tell Your Data Story?: A Simple Way to Improve your Data Science Project." *towards data science*, 2020, <https://towardsdatascience.com/can-you-tell-your-data-story-154417a33efb>

### Materials:

- Data Visualization: Introduction (Bridget Blodgett; pptx)
- Data Visualization Demo (Bridget Blodgett; mp4)
- Visualization One (Bridget Blodgett; jpg)
- Visualization Two (Bridget Blodgett; png)

### Assignments:

- Discussion: Concept Map

## Tools Introduction: Orange

**Readings:**

- Sarker, Dipanjan. "A Comprehensive Guide to the Grammar of Graphics for Effective Visualization of Multi-Dimensional Data." *towards data science*, 2018, <https://towardsdatascience.com/a-comprehensive-guide-to-the-grammar-of-graphics-for-effective-visualization-of-multi-dimensional-1f92b4ed4149>
- Brown, Nick. "Getting Into Data Visualization - Where Should I Start?" *Medium.com*, 2015. <https://medium.com/datavisualization/where-should-i-start-c53acdf04a1c>

**Materials:****Orange**

- Orange Intro (Amy Giroux; pdf)
- Orange Tweet Analysis (Amy Giroux; pdf)
- Orange pt 2 Sentiment Analysis (Amy Giroux; pdf)

**Assignments:**

- Discussion: Orange Homework (Amy Giroux; pdf)

**Tools Introduction: Gephi****Readings:**

- Wickham, Hadley. "A Layered Grammar of Graphics." *American Statistical Association, Institute of Mathematical Statistics, and Interface Foundation of North America Journal of Computational and Graphical Statistics* 19, no. 1 (2010): 3-28. doi: 10.1198/jcgs.2009.07098

**Materials:****Gephi**

- Installation tutorial (Google slides)
- Gephi for Analysis pt 1: Basics (mp4)
- Gephi for Analysis pt 1: Basics (pptx)
- Gephi for Analysis pt II (mp4)
- Gephi for Analysis pt II (pptx)
- Gephi for Analysis pt III (mp4)
- Gephi for Analysis pt III (pptx)

**Assignments:**

- Visualization Assignment

**Data Analysis****Readings**

- Pennington, Diane Rasmussen. "Coding of Non-Text Data." In *The SAGE Handbook of Social Media Research Methods*, edited by Luke Sloan and Anabel Quan-Haase, 232-250. Thousand Oaks, CA: Sage Publications, 2016. <https://dx.doi.org/10.4135/9781473983847.n15>

**Materials:****Twitter**

- Analyzing Twitter Data (Stephanie Vie; mp4)

- Publishing with Twitter data (Stephanie Vie; mp4)

#### Critical Discourse Analysis

- CDA Intro (Vie and deWinter; mp4)
- Applying Critical Discourse Analysis (Vie and deWinter; mp4)
- Tools for CDA and Visualization (Vie and deWinter; mp4)

#### Assignments:

- Discussion: Visualization Tools (from Vie and deWinter “Tools for CDA and Visualization”)

### **Bots**

#### **Intro and Making Bots**

##### Readings:

- Holmes, Steve and Rachael Graham Lussos. “Cultivating *Metanoia* in Twitter Publics: Analyzing and Producing Bots of Protest in the #GamerGate Controversy. *Computers and Composition* 48 (2018): 118-138. <https://doi.org/10.1016/j.compcom.2018.03.010>
- Sherratt, Tim. “Unremembering the Forgotten.” *Debates in the Digital Humanities 2019*, 2019. <https://dhdebates.gc.cuny.edu/read/untitled-f2acf72c-a469-49d8-be35-67f9ac1e3a60/section/be608100-95b6-4e48-bfd5-a82a588da8f1>
- Veale, Tony and Mike Cook. *Twitterbots: Making Machines that Make Meaning*. Cambridge, MA: MIT Press, 2018.

##### Materials:

- Twitter Bot Workshop (Leo Flores; Google doc)
- Twitter Bot Workshop (Leo Flores; mp4)
- Artistic and Literary Bots (Leo Flores; pdf)

##### Assignments:

- Bot Creation