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Investigating Disembodied University Crisis Communications during COVID-19

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ABSTRACT
The COVID-19 pandemic has shown us many weaknesses in crisis communication, especially at universities where campus communities are often rendered as disembodied monoliths. In this article, we select a case example from our own institution to show that when bodies are erased from university crisis communication, power imbalances are reinscribed that render campus community members powerless. Using a critical feminist methodology, we end with several suggestions for more inclusive embodied institutional crisis messaging.


cCS Concepts
Social and professional topics → Professional topics → Computing and business → Socio-technical systems

Keywords
Crisis communication, university communication, embodied communication, COVID-19

INTRODUCTION
In Fall 2020, Illinois State University (ISU)1 welcomed many of its 20,878 students (Planning, Research, and Policy Analysis, 2019a) back to campus amid the COVID-19 pandemic. While 79.89% of the university’s courses were offered online, 10.53% were hybrid and 9.58% were face-to-face (F2F) (S. Kalter, personal communication, February 17, 2021). This was a shift from ISU’s original plan. All summer they were planning on having close to half of classes in some kind of in-person capacity and a quarter as some form of hybrid, despite student, faculty, staff, and community protests. They made the decision to move to mostly online two weeks before the semester because they realized they would not be able to provide adequate testing capacity for the number of students on campus. Courses left as hybrid or F2F were mostly science labs and clinical sites.

ISU also pushed a “business as usual” narrative that promised students “the college experience,” so they welcomed many students back to live in the dorms. The campus and community also maintain permeable boundaries, with thousands of students living in the neighborhoods surrounding campus. As such, come August 2020, a large portion of ISU students returned in some capacity to Normal, IL, increasing not only their own risk for contracting COVID-19, but also the risk for community members—many of whom also include ISU faculty and staff who live in town but worked remotely—who would interact with them in public places such as grocery stores and restaurants. Students began hosting and attending parties2 and going out—often maskless—to bars and restaurants, which likely contributed to cases in the McLean County community skyrocketing. At one point over 1000 new campus cases were diagnosed in one week (“COVID-19 Campus Case Tracker,” 2021), and cases in McLean County hit record highs, potentially a ripple effect that started on both ISU’s campus as well as nearby Illinois Wesleyan University’s (IWU)3 and the surrounding student housing (Petty, 2020), although it would be difficult to prove this causal statement.

We open with this story not because we intend to criticize ISU’s decision to invite students back to campus amid a pandemic.
Indeed, we are by far not the only university that did so, as it seems most universities in the country had to balance the competing pressures of keeping students safe, keeping the institution solvent, and appeasing students and their families. This was certainly not an easy task, and some universities handled it better than others. Instead, we open with this story because when ISU and other colleges and universities decided to re-open campus and invite students back, they also took on a responsibility to ensure that the campus community closely followed COVID-19 health and safety protocols. However, ISU largely fumbled these attempts early in the semester. Not only were the handwashing and social distancing videos they created and circulated more of a legal necessity than actual guidance, but ISU also provided students, faculty, and staff with one thin nylon mask and a tiny bottle of hand sanitizer to last the semester, which also required in-person pickup.

Perhaps the area where ISU most failed its campus community, and by extension the larger Bloomington/Normal community, was through its university-wide crisis communication system. ISU began sending weekly “Coronavirus Updates” via email and created a webpage detailing their “Coronavirus (COVID-19) Response,” which also links to a “COVID-19 Campus Case Tracker.” This tool became available on the first day of the semester even though many students had begun moving in days and weeks prior. Importantly, this dashboard only keeps track of people who tested positive from a campus testing center. Nearby Bloomington also hosts one of Illinois’ major drive-through testing hubs, and students—especially those who live off campus—may have tested there instead of on campus. That center does not separate ISU students’ data from other testers’ data.

As a graduate student and a professor on ISU’s campus, we find that the attempts to communicate risk to students at the beginning of the Fall 2020 semester were not only inadequate but perhaps at times negligent. Early updates gave little direction about COVID-19 safety standards, which likely had an impact on our community shortly after ranking on The New York Times (“Coronavirus in the U.S.” 2021) list of metropolitan areas with the fastest increasing positivity rates in the country. At this time, rather than clarifying standards, exciting protocols, or providing resources, crisis messages from campus leaders served to highlight student transgressions, enact blame, and continually erase the campus community and their bodies.

Despite calls for increased investigation of university crisis communication (Pantelides et al., 2016; Powell, 2004), attention to and criticism of university crisis messaging remains increasingly exigent following the COVID-19 pandemic. This article seeks to help fill this gap by examining the erasure of diverse bodies in university crisis communication, or disembodied crisis communication, as we call it. Our goal for this chapter is to present concrete take-aways for how crisis communication theorists and practitioners can better represent and account for diverse bodies in university crisis messaging.

EXIGENCE AND CONTEXT FOR THE STUDY

Scholarship and ongoing research in crisis communication is an interdisciplinary endeavor, rooted not only in the field of technical communications, but also in public relations and communications, with scholarship so vast that crisis communication has become a subdiscipline to itself (Heath, 2010, p. 1; Coombs, 2010, p. 23). Each orientation to crisis communication scholarship is dependent on the particular types of risks, contexts, and issues that each individual project demands, meaning that it is impossible to pin down a singular approach or guideline to successful crisis messaging. With the implementation of new media, such as the email messages we study in this article, communicators have expanded possibilities for the scope and effect of crisis messaging. Emails like the one we’ll examine in this article are especially important because of the direct way that they travel to electronic devices and are consumed quickly and widely. As Stephens and Malone (2010) assert, the use of new media crisis communication channels can “facilitate bi-directional communication, or dialogue” though “recent public relations research has found that organizations are doing a rather poor job taking advantage of the dialogic opportunities that new media such as websites provide” (p. 381). However, as Stephens and Malone (2010) explain (p. 390), new media invites wide potentials for improvement that proved vital for the COVID-19 pandemic, such as the possibilities for stakeholders to meet virtually, share emerging information, and form coalitions to improve crisis messaging. Throughout this article, we highlight the communication breakdown in relation to the possibilities of crisis dialogue, and outline some of the extended capacities of new media crisis communication still possible.

As demonstrated by our introductory details regarding COVID-19 on our college campus, academic crisis communication is complicated. The academic institution not only provides a response to a natural or human-created disaster, but also provides an extension of their commitment to the mission of the institution to keep students, faculty, and staff safe. These types of crisis communications are an instance when university meaning is communicated most overtly, but without attention to these messages, the norms and values which underlie these texts may be “out of sight” as Brian Paltridge (2013, p. 89) warns. These messages reveal the potential for university communication design to reproduce implicit power inequities, or to exclude “certain people from institutions of higher education, and the struggles of those same people to change higher education” (Powell, 2004, p. 460). University crisis messages are the first line of defense for keeping members of the campus community safe, yet they are also imbued with certain institutionally homogenized expectations of their audience’s material access, geographic knowledge, and prior experience of trauma and crisis (Sauer, 2002; Heath & Miller, 2004; Grabill & Simmons, 1998; Frost, 2018; Fearn-Banks, 2017). As such, when those who craft these messages fail to recognize their power to shape realities and craft campus narratives, or when they fail to consider the diverse embodiment of the campus community, they can fall short of even the most basic goals of safety. The vague action—and sometimes lack thereof—prescribed by these messages is in response to a standardized notion of identity, access, and antecedent knowledge, which ultimately divorces students, faculty, and staff from their diverse embodiment. As such, it is important to consider disembodied risk in university crisis communication.

As such, we examined email messages from ISU before and during the Fall 2020 semester, and we have chosen one demonstrative example to analyze here, highlighting how these crisis communications erase bodies by forcing users to acquiesce to institutionally defined pandemic norms that place the university over the health and safety of the campus community. To better understand this phenomenon and shed a critical light on messages like these, we examine a particular email from our university sent...
out amid the highest spike of student infection. We have selected this email from the dozens at our disposal because we see this moment as one of the largest missed opportunities for ISU to re-establish safety and provide guidance for students, faculty, and staff. ISU frequently shares information on community-specific crisis situations—ranging from winter weather closures to updates regarding the COVID-19 pandemic—via email. On September 1, 2020, all ISU students, faculty, and staff received their first weekly Coronavirus Update. We chose to analyze this email because it showcases many of the most blatant issues with ISU’s crisis communication, especially as it pertains to technical framing and efficiency as well as assumptions about normalized embodiment and homogenized risk.

Containing an introduction explaining the purpose of the new weekly updates and sections on “Testing,” “Housing and Contract Cancellation,” and “Employee Flexibility,” this 870-word email is a marked break from prior communication. Whereas previous crisis messages and updates came from specific administrators—such as the university president and provost—this message was anonymous, with the sender named as “Coronavirus Update – Illinois State University” and the email listed as “MassEmail@illinoisstate.edu.” Much of the body of the email is composed of direct narrative quotes of previous communications from university administrators, giving the update the feel of a press release more so than a crisis message. For example, most of the first paragraph of the “Testing” section consists of quotes, such as the opening: “Illinois State University is working with the University of Illinois to become a partner in their saliva-based test,” said John Baur, professor of chemistry and COVID-19 testing coordinator. Baur is leading Illinois State’s testing efforts” (Coronavirus Update, Personal communication, September 1, 2020). In addition, rather than the previous formal letter-style communication, this message was broken up with subsections made up of short paragraphs and containing links to relevant resources.

The context of this email is important because, at a time when institutional trust was low, it provided very little to (re)establish trust with students, faculty, and staff. We put “re” in parentheses here because not all members of the campus community, particularly BIPOC, queer, and disabled students, felt they could trust the university even before the pandemic. The technical framing of the email assumes a neutral and objective tone that completely disregards the many contextual factors at play on both a local and national scale. The university had suddenly shifted its plans for course delivery barely a month prior—which contradicted the “business as usual” narrative it had been touting all summer, much to the dismay of many faculty, staff, and community members—leaving many students confused and unhappy and putting some faculty in the position of altering their modality with only two weeks to plan. This update also arrived in our inboxes the day our campus diagnosed its 1078th positive case, right in the middle of the biggest spike we have seen yet and right when The New York Times designated Bloomington as a national COVID-19 hotspot (“COVID-19 Campus Case Tracker,” 2020). In other words, this first Coronavirus Update arrived at a time when the campus community morale was at an all-time low and we needed clear communication that prescribed direct action and (re)built trust. Further, without direct accountability from the university president or another administrator, there was no clear line for response nor a unified sense of voice. The shift to an authorless email also shifted authoritative control, commanding institutional trust and technically framing the university’s COVID-19 response as monolithic. At the same time, this approach diffused blame, an effective rhetorical tactic since the abrupt shifts of the university are surely met with dissonance and confusion not just for the students themselves, but also for their support systems outside of campus. In particular, the pressures of ISU parents who expressed demand for 100% in-person classes in Fall 2020 on respective Facebook groups also heightened the blame directed at the university, most specifically at faculty members.

Given this context and the unlawful murders of George Floyd and Breonna Taylor that prompted a resurgence of Black Lives Matter protests over the summer, coupled with the local #AntiBlackISU movement that began in Fall 2019, institutional trust and accountability were shaken for many BIPOC, particularly Black, campus community members. Students, faculty, and staff of color, queer recipients, older and high-risk members of the community, and others such as first-generation and non-traditional students likely already felt less tangibly supported or acknowledged by institutional policy more broadly. As a result, shirking direct administrative accountability and instead inserting campus leaders as a means of expressing platitudes (such as the Vice President for Studies Affairs saying, “We know that flexibility is key” in the September 21 email) only widened the gap of distrust between the university and its marginalized community members.

**A CRITICAL FEMINIST METHODOLOGY FOR EXAMINING UNIVERSITY CRISIS EMAILS**

To analyze ISU’s crisis communication, we developed a critical feminist approach grounded primarily in scholarly work by Erin A. Frost (2016, 2018), Natasha Jones, Kristen Moore, and Rebecca Walton (2016), Kristen Moore (2016), and Rebecca Walton, Kristen Moore, and Natasha Jones (2019). These works value critical feminism, focusing on social justice aims and intersectional embodiment, which we agree should be at the core of university crisis communication. Walton, Moore, and Jones (2019) recognize that technical communication can exist as “a discipline uniquely attuned to the human experience” in its orientation to concepts such as power, positionality, and privilege (p. 102). A critical feminist framework presents the importance of careful definition work in understanding the texts that filter through our lives, working to understand how technical texts are embedded and whom they directly impact, and how these implications vary based on the bodies that we occupy.

Erin A. Frost’s (2016) apparent feminism methodology helps us understand the ways in which feminist interventions are needed in university crisis communication and the importance of “demystifying the relationship between feminism and efficiency” (p. 16). First, apparent feminism recognizes that technical documents are “sites of culture making” (Frost, 2016, p. 13). Because university crisis communication goes out to entire campus communities, often prescribing action and ostensibly providing clear information, we see these documents as saturated in cultural norms and expectations. While they tend to privilege the idea of a standardized campus community that is more dream than reality, they echo and create campus cultural norms. Second, apparent feminism recognizes the damage that efficiency can cause when technical documents do not account for diverse users. That is, while efficiency is “defined as the balancing point at which we achieve
the best result from the least amount of energy,” Frost’s (2016) methodology “argues that being inclusive of cultural diversity contributes to the potential for efficiency” (p. 17). Documents that acknowledge and speak to their diverse audiences are overall more effective than ones that flatten contexts and identities.

Similarly, we must also consider the ways in which university crisis communication completes the definitional work of outlining the crisis through what Edward Schiappa (2003) calls the technical framing of an event. Technical framing presents the information as neutral and objective, because as Schiappa explains, “when a situation is defined by someone, especially someone in authority, we are encouraged to ‘see’ the similarity between the current situation and a prototypical exemplar and to behave accordingly” (2003, p. 156). Yet, due to the brevity and urgency necessitated by the role of crisis in shaping the text of the message, untangling the ways that these messages are technically framed also provides insight into the institutional authority, or ethos, that is at work. Melody A. Bowdon (2014) writes that emergency messages are “often virtually free of context, mak[ing] it relatively easy for an individual or an organization to promote its message, but it can be equally easy to make an embarrassing, harmful, and/or potentially damaging public misstep” (p. 36). In this way, crisis management is always technically framed in relation to the institutional context in which it occurs within and with consideration for the groups the communication will reach. It also influences response through audience antecedent knowledge because crisis communications “encourage us to act how we have been taught is appropriate for a crisis, which is quite different from how we have been taught to behave in a ‘normal situation’” (Schiappa, 2003, p. 156). In crisis situations, technical framing has persuasive effects, and these implications are reflective of the normative renderings of the audience. Due to the technical framing that takes place in crisis communication design, audiences might not consider that these messages are partial and selected, relying on our socialized reactions, and composed in the interests of the institutional authority crafting these messages.

As such, when it comes to university crisis communication, we believe that it is of utmost importance to acknowledge users’ intersectional embodiments. Frost (2018) explains that “a focus on embodiment means more than just paying attention to the normative ways that technical documents too often construct bodies and critiquing the common assumption of an objective or default body (usually meaning a white, straight, able, male body)” (p. 25). Without consideration for diverse bodies, communicators cannot consider the embodied effects that their messages produce as a response to the crisis messages. When bodies are not centered in crisis messages, these emails instead construct a monolithic norm that can be alienating to many campus community members. These crisis messages call forth a specific response that makes assumptions about recipients and their response—thereby cementing oftentimes damaging norms.

But of course, technical communication is always embodied precisely because our minds exist in our unruly and divergent bodies: all written and spoken expressions are material and embedded in the lived experience of both the speaker and their audience (Helmers, 2006, p. 115). Our writing—regardless of the perceived technicality of the genre—takes place in real time, in real bodies, reflective of and shaping for the experiential realities the texts punctuate. Kristie S. Fleckenstein (1999) theorizes that our bodies are “neither a passive tabula rasa on which meanings are inscribed nor an inescapable animal” but instead, we are all individuals “within concrete spatiotemporal contexts” reflective of the material spaces we occupy (p. 281). Poststructuralist theories begin this work, whereas social epistemicism disregards the corporeal significance of the body in the process of meaning making (Fleckenstein, 1999, p. 282). Abby Knoblauch (2012) acknowledges the long history between the bodies and language, situating attention to embodiment back to classic rhetoricians such as Plato and Aristotle (p. 50). Embodied rhetoric works against “the view from nowhere” to center upon social positionalities and embodied knowledge—senses of knowing through the body—as facets of meaning making (Knoblauch, 2012, pp. 59, 52).

As such, any study of embodiment must necessarily also attend to the power—and sometimes lack thereof—that bodies have in certain spaces such as university campuses. In order to better understand the complexities of power and its relationship to marginalization and embodiment, our feminist approach moves past one-dimensional feminism and disarticulated attention solely to gender. Instead, throughout our analysis, we also attend to other intersecting identity factors such as race, disability, sexual orientation, and socioeconomic class, as well as others. This means that we consider the idea of positionality more broadly, which Jones, Moore, and Walton (2016) define as a concept that “focuses on reflexivity and building relationships, builds from the assumption that subjectivity and, particularly, oppression are intersectional” (p. 221).

This study shows that, when university crisis communication is disembodied, it treats each body as accepted and provided for, which is a dangerous oversight. Knoblauch continues:

To ignore the body in scholarship might, in some ways, aid those from minority groups, but only by asking them (us) to pass, to act as if our bodies, our experiences don’t matter, to act as if we are white, heterosexual, able-bodied, privileged men. And that just doesn’t sit right with me. (2012, p. 59)

Because our bodies and the bodies of everyone else in our campus community all differ from one another, they shape how we respond to texts and what we notice. In acknowledging that our bodies are performative and individualized, they can begin to act as sites of contemplation: there is no universal formula, no fitting template for all of the writing that we do because how we look and move are entirely distinct. Every person’s body has different needs because of the different social and cultural oppressions and pressures that come with their race, gender, sexuality, disability or mental health status, pre-existing medical conditions, age, and so many other identity factors and their intersections.

Our critical feminist commitments are also an outcome of our responsibility to social justice initiatives. Colton and Holmes (2018) explain that social justice research “strives to recognize injustices within institutional contexts in order to call for the revision or reimagining of these contexts” (5). Through taking a social justice approach in our analysis, we understand that the impacts of crisis events are not homogenized, and so we must consider how sociocultural perceptions of a crisis impact both the understanding of an event and the response that is made. By understanding risk in this way, we can recognize that the experience of crisis is already embodied because it considers how technical documents construct and accommodate some bodies while putting others at risk (Frost, 2018, p. 24).
Ultimately, we analyze how crisis message design constructs a certain type of subjectivity that sustains and normalizes power inequities, oftentimes because embodiment is not considered. Through rhetorically analyzing an example university crisis email, we seek to better understand how crisis messages fit into the larger institutional context, and how these messages could be better optimized with considerations of embodiment. Further, per our commitments as feminist rhetoric scholars, we consider factors such as access, embodiment, privilege, and positionality to complicate the rhetorical conceptions of audience, purpose, and context. By taking a critical feminist approach, our investigation of campus crisis communication will focus on marginalized identities in our campus community, placing issues of power, privilege, and positionality at the forefront (Walton, Moore, & Jones, 2019). The COVID-19 pandemic presented unprecedented institutional obstacles and necessitated complex decision making that could not be comprehensively detailed over the course of an email. Synthesizing these multifaceted plans and quickly changing currents of information into an email surely represented a tricky task, but in order for these messages to be actionable, inclusive, and usable, they must consider the embodied realities of the campus community.

COVID-19 MESSAGING AS DISEMBODIED CRISIS COMMUNICATION

The inaugural ISU Coronavirus Update does not consider these embodied realities, in large part because it follows from outdated crisis communication models that call for concision and efficiency, unidirectionality, and prescribed response. More recent work on crisis communication specifically disavows these rhetorical moves (Ulmer, Sellnow, & Seeger, 2017), but ISU (and likely other universities) still rely on these public relations approaches to communicating crisis that have the potential to cause harm even as they attempt to protect recipients. This section examines these three precepts and uses the email as an example of how they can fail recipients by erasing their embodiment.

Problem 1: Efficiency erases nuance and takes antecedent knowledge for granted

Under outdated models, crisis communication is often designed to be concise and efficient, containing only essential details and little stylistic distinctiveness and quickly sharing a message with a goal of having the largest impact while expelling the least amount of energy (Heath & O’Hair, 2009). It is composed without a stated author, written to solve a problem, and reflective of an organization’s goals (Markel & Selber, 2018, p. 10). Falkheimer and Heide (2010) note that this efficiency is often considered one of the hallmarks of “the communicator’s professional value” (p. 513). However, this efficiency can result in losing nuance and treating all experiences as if they are the same. But of course, a student’s experience of the pandemic is vastly different from a faculty member’s, which is vastly different from a staff member’s. And within each of these groups, people also have divergent experiences based on their intersectional identities. However, this email treats all recipients as if our campus experiences are the same.

For instance, the Coronavirus Update includes vague quotes from the university president saying things like “University leadership is closely monitoring positive test results received from on-campus and community testing and is in regular discussions with local government and health officials” and “I encourage as many faculty and staff as possible to work remotely if their position allows.” While on the surface both of these statements seem helpful, in actuality, they provide little usable information for most members of the campus community. For instance, what are these regular discussions related to positive test results about? Who is involved? What will the impacts of these discussions be on the campus and local community? With no details responding to our varying needs, this statement serves as another platitude meant to make the campus community feel safer; ostensibly the university is doing something to keep the community safe, despite the fact that this “something” is unclear.

The concise and efficient rhetorical framing of this email also overlooks a key component of the campus community’s ability to adequately understand it and respond/act accordingly: antecedent knowledge. While many faculty and staff have been at the university quite a bit longer on average than students—who are typically enrolled 2–5 years on average, depending on degree—students are often less integrated into the university and therefore don’t have access to the kinds of institutional knowledges that can aid in deciphering this email. Further, first-generation students—who are often, but not always, marginalized or multiply marginalized—have even less access to these kinds of knowledges than students whose parents or family members have attended college or university. The “Housing and Contract Cancellation” portion of this email calls on students to advocate for themselves if they choose not to live in the dormitories. This section details some ground rules for those who choose to stay (no guests) and safety measures that have been taken (regular cleaning, de-densified occupancy in rooms, closed areas, and physical distancing precautions), but contains very little information on how to cancel housing and dining contracts beyond a link to the “Housing and Dining portal,” which directs users to a webpage with little information about the process. Students and their families who have little or no experience navigating university infrastructures could find this vague information a deterrent to the flexibility promised in this section.

Further, this email presumes campus-wide antecedent knowledge of other policy documents created for the COVID-19 pandemic, such as the Redbirds Keep Learning Plan (RKLP), which is just one aspect of the range of updates and policies that students were expected to keep track of pertaining to the pivots and responses of pandemic policy. Much of the information and links in this message are specific to the changes in policy outlined in the RKLP—particularly relating to meal plan, housing, and work agreements—but the document itself is not included. This email makes no reiteration of the RKLP, no acknowledgement that it exists. As a result, we received an email that purports to care about our safety while providing almost no information about how to stay safe, access necessary resources, or connect with relevant administrators or campus offices. Instead, the email assumes that the campus community is affluent in its COVID-19 protocols and policies, when in actuality this information could easily have been lost in inboxes, opened but half read, unintentionally ignored, or perhaps even misunderstood, especially given that it was sent over the summer when many campus community members are less attuned to campus matters.

Problem 2: Unidirectional messages raise more questions than they answer

Second, these messages are usually unidirectional. While messages are sent across media, and although recipients may be directed
to other digital spaces where they may find more information, there is often no opportunity to ask questions, follow up, or seek clarification. When sending crisis messages, the university is prescribing a course of action while also restricting the channels of communication. For example, while this email states that faculty and staff have been given a directive to work from home if they are able to, it contains no guidance beyond a link to a “temporary work from home agreement” that they can fill out and submit to Human Resources. However, many questions remain: Who is eligible to work from home? Who else, such as a supervisor or department chair, should they talk to about this arrangement? Like the link to the “Housing and Dining portal” mentioned above, clicking through the link only takes the user directly to the temporary work from home agreement, but it does not provide any additional information. Instead, by attempting to efficiently reach the widest possible campus audience, these vague statements raise more questions than they answer, and the email provides no avenues for follow up information. The fact that recipients cannot respond to these messages or find out more detail directly is indicative of the rhetorical (in)action put in place and the lack of multi-directional communication fostered at the university. As a result, recipients are rendered passive through the lack of action prescribed in the message and silent in the inability to respond.

In addition, while crisis communication messages are more easily distributed through and designed for increasingly networked campus communities, they also risk the potential for becoming increasingly disembodied due to this digital delivery. Students, faculty, and staff reside within a communicative landscape that echoes with the consistent networked buzz of university alerts; although campus community members could obtain up-to-date information instantly through a range of media, direct messaging is among the most reliable and consistent. This is especially pertinent given the context of a pandemic, in which bodies are encouraged not to gather, but to instead isolate and keep away from each other, where digital means of communication become increasingly more important. However, we also need to pay attention to how these digitally mediated alerts construct the narrative of campus safety when students’ bodies are no longer centrally located on campus. Because students, as well as many faculty and staff, have been dislocated from most of the communal spaces that they typically share, the exactitude of the messages is more important than in prior crisis communication situations. For this reason, the embodied realities of the campus community as separate from the university are all the more important to the understanding of these messages and their effects.

**Problem 3: Calling forth a specific response collapses embodied difference**

Third, university crisis messages construct a type of reality that calls forth a specific response. They address and prescribe a normalized campus community while also making assumptions about recipients and their responses to the message—thereby cementing norms through a standardized notion of identity, access, and antecedent knowledge. But it is impossible to know what a “normal” response looks like when a crisis is ongoing, unexpected, and sometimes even unprecedented, and especially when the recipients represent a diverse range of embodiments. For instance, although ISU is a primarily white institution (PWI), with 72% of its population, or 13,165 of its students identifying as white as of Fall 2019 (Planning, Research, and Policy Analysis, 2019a), it also serves a more diverse population, including:

- American Indian/Alaskan Native (11%)
- Black or African American (9%)
- Asian (2.3%)
- Hispanic (10.8%)
- Native Hawaiian or Pacific Islander (1%)
- Non-US citizens (2.7%) (Planning, Research, and Policy Analysis, 2019a)

ISU’s students also identify 43.3% as male, 56.4% as female, and 0.2% as non-binary or not disclosed (Planning, Research, and Policy Analysis, 2019a). Further, 74.7% of the faculty (including both tenure track at all ranks, non-tenure track, and emeriti) identify as white, 3.6% as Black or African American, 2.4% as Hispanic, 6.1% as Asian, 2% as American Indian/Alaskan Native, as 2.5% are non-US citizens; 44.2% identify as male and 55.8% as female (Planning, Research, and Policy Analysis, 2019b). These numbers are similar to the U.S. national average for student and faculty makeup in a campus community. There is no statistical data on campus staff, which includes office administrators, program/unit directors, and other office staff, although they are included as recipients of the same crisis messaging as students and faculty.

Although these numbers skew toward a “standard” population of white students and faculty, this data does not include information about socioeconomic backgrounds, sexualities, disability statuses (including mental health), or pre-existing medical conditions, among many other private, undisclosed identity factors. Further, while the Fall 2019 report states that many of our students are in their twenties, no information is provided for faculty ages. All of these identifiers and more impact the ways in which the campus community interprets and responds to crisis messages, accesses and moves through campus, and otherwise comes to understand a crisis within the context of the university. The bottom line here is that there is no monolithic norm that can be exerted on a campus community, yet crisis communication often assumes a cis-heterosexual, white, and able-bodied standard.

In addition, the lengthy blocks—eleven paragraphs—of text signal a normalized view of the audience from an accessibility and usability standpoint. This format reveals a presupposition that students’ material resources are met, that they are in safe spaces (physically, mentally, emotionally) to understand the crisis communication content. But given the uncertainty brought on by the COVID-19 pandemic, none of these can be taken for granted. With housing and food insecurity on the rise (particularly for Black and Latino households) (Center on Budget and Policy Priorities, 2021), as well as the mental health issues brought on by increased isolation (Rogers, 2021) and virtual interaction fatigue (Stanford University Communications, 2021), we cannot assume that everyone in the campus community is safe, secure, and in a mental/emotional state that enables complete understanding of this message. Despite the context of the message, in which recipients would be looking for quick information and response, the text is not optimized for the realities of how this message would be received several weeks into a semester of uncertainty, in which the campus community is spiking with infection and response policies are in flux.

Pertaining to the readability of this text, there’s also a normalized assumption of able-bodiedness that permeates this message. Because the message is not optimized, and the complicated realities of students do not appear to be fully considered, there’s
a prescription for how this message will be read. Specifically, institutional communicators have designed this text in a way that seems to imply that every student has the same ability to sit and read through this relatively obtuse and lengthy email. This assumption, specifically, does not account for a range of students, faculty, or staff who may have a visual impairment and may require the use of a screen reader to make sense of this dense information. Further, these messages do not accommodate community members with chronic illness or in a high-risk demographic for coronavirus risk, nor those actively suffering from the symptoms of COVID-19, for whom navigating this obtuse text would be extremely difficult. As such, there’s an erasure of the complexities of bodies, abilities, and lives because there’s one way of consuming this information.

In adjusting to a mostly online semester amid a rampant pandemic on campus, with shifting policies and expectations, few students, faculty, and staff would be able to keep track and make sense of all the policies noted in this Coronavirus Update. Although this message was sent specifically for members of the campus community, it does not consider the embodied realities of students, faculty, and staff, and how their positionalities may lead to complications, misunderstandings, and erasures by some of the technical-rhetorical choices of their Coronavirus Updates. Even when embodied considerations are not recognized, they are inherent in the production of crisis communication because these messages anticipate and accommodate some bodies while putting others at risk (Frost, 2018, p. 24). For example, faculty and staff experienced an ironic prioritization of students that erased them from most safety discussions, deliberations, and decisions. Without the acknowledgement of the embodied realities of members of the campus community—and how these realities complicate and present deviations in how messages can be received—recipients will not be able to fully understand and utilize crisis messages.

**DISCUSSION: CONCRETE TAKEAWAYS FOR CRISIS COMMUNICATION PRAXIS**

As we write this conclusion in early August 2021, we have only just last week received a Coronavirus Update that clearly explains the protocols for the mostly in-person university experience that will begin shortly. This email comes nearly six months after the former president promised in February that ISU is “planning for a more traditional campus experience and will offer as many face-to-face courses as possible,” including more students living on campus and more in-person university events for the Fall 2021 semester. In February 2021, higher education had not yet been included in any of the phased approaches to vaccine distribution in Illinois; instead, the president—who had already announced his plan to retire, signaling a new level of embodied privilege in that he could make a decision about who would be on campus while himself being safely removed from the immediate risk that being on campus carries—was merely “planning with optimism based on news of the Biden-Harris administration’s commitment to significantly increase access to the coronavirus vaccine prior to the fall term” and strong belief that our campus community will have access to the vaccine before the term begins. In August 2021, the Delta variant—which is more transmissible and is resulting in breakthrough infections in those who have been vaccinated—is on the rise and ISU continues to plan for in-person classes. In this most recent email, administrators have re-implemented a face covering requirement after dropping it in June, but the vaccine requirement, which mandates that those who choose not to vaccinate will be subject to required weekly testing (without specifying the consequences for noncompliance), leaves many of us skeptical of the new president’s concern for our health and safety. In short, we are seventeen months into this pandemic, and ISU still is not communicating risk and crisis with our bodies at the forefront. We are still receiving broad emails with vague notions of health and safety that do very little to recognize our diverse material realities. As such, we have suggestions for how university crisis communication needs to improve to be able to meet the embodied needs of campus communities.

Universities that are fortunate to have experts in technical communication, and especially crisis communication, need to work with their faculty and graduate students to learn how to communicate risk and crisis effectively; this should be compensated labor, of course. Cox is a PhD student specializing in technical communication and writing a dissertation that, in part, analyzes university crisis messaging. Sparby is a professor with expertise in digital rhetorics and technical communication and has taught courses on crisis communication. Our department also has six other tenure-track, tenured, and non-tenure track faculty members, in addition to a handful of other graduate students, with some level of experience researching technical and crisis communication. However, we have not once been contacted for consultation on university crisis communication during the pandemic. If for faculty, access to our research is available in several university systems that are used to evaluate our yearly productivity, and our course titles are visible in any university catalogue, so the university cannot claim ignorance of our relevant and needed experience.

If our university had approached us for how to design effective crisis communication, we would have had five key suggestions that require a shift in perspectives from the university, as well as several others related to specific communication practices. These messages would be improved through more fully considering the audience’s perspective and then optimizing crisis communication messages through more responsive design reflective of the embodied realities of the campus community. First, the perspective shifts:

1. **Don’t act like a corporation.** Don’t rely on rhetorics of “optimism” and “confidence”—what we’ve come to call health and safety theatre—and instead remember that higher education also has roots in educating the public.

2. **Make risk assessment practices and mitigation efforts transparent.** We are often not told about these efforts until policy has been created enforcing them, and we have been given little insight into what goes on behind the scenes of enacting them.

3. **Offer more than platitudes.** Nearly every COVID email has had some line expressing thanks to the students, faculty, and staff for our hard work moving to mostly online instruction, or gratitude to us for our patience and flexibility, as well as pleas and directives to follow health and safety guidelines and take care of ourselves. But these expressions of appreciation and sentiments of care are hollow without real effective communication that values us as a diverse array of bodies with differing needs.

4. **Normalize and provide mental health support.** As a global health crisis that has caused a huge rise in mental health issues, the COVID-19 pandemic has also brought economic implications related to housing and food insecurity that have increased depression and anxiety. University crisis
communication needs to recognize that this is part of the embodied realities of our students, and providing resources is imperative.

5. Recognize that universities are colonial institutions of power and privilege. Racism, sexism, homophobia, and classism are alive and well at universities, especially PWIs, and they shape the embodied realities of our students. BIPOC, queer, and disabled community members often have deep distrust of medical institutions because medical discrimination has disenfranchised them repeatedly, so emails that treat every recipient’s experience of a global pandemic as uniform are not only insensitive but downright insulting as they reestablish harmful power dynamics.

As long as universities put their own interests first and occlude important health and safety details while offering vague banalities, they will not be able to communicate risk and crisis effectively to the campus community. Nebulous assurances of optimism and confidence that are not backed by concrete information do little to instill either; in fact, they often result in distrust, frustration, and anger, among other negative responses. Speak to us as individual humans, not as a disembodied monolith.

Once universities shift their perspectives and recognize our need for concrete and transparent communication, we also have several suggestions for those communication practices. A difficulty of addressing the entire campus community in one email is that broad assumptions about the audience result in presumptions about recipients’ embodiments and also their antecedent knowledge. As exemplified in our analysis above, one of the major barriers to responsive and effective crisis communication is overgeneralizations of audience embodiment. Rather than address faculty, staff, and students in a single message, we recommend campus communicators consider sending unique messages to each of these groups, referencing the key information that the other groups are told, when relevant. For instance, a faculty email may include specific information about managing courses and student conduct, while also referring to specific information that students have been provided. Although there is some value in sending out the same information to all members of the campus community, it can also result in an influx of irrelevant information, such as the email we analyzed above which contained information about cancellation policies for housing and dining contracts. Faculty and staff likely do not need this information, and students likely need more than what was provided.

Second, although the email used certain textual indicators of emphasis—namely, bolded subheadings and shorter paragraphs within each subsection—further optimization would help make this information more usable, such as

1. Indicate central takeaways at the outset of the email. This would have made the email easier to scan quickly and enabled the user to find relevant information more quickly.
2. Direct email recipients to other relevant campus resources. The email messages are currently doing all of the work of crisis communication, but the resources can help to fill in gaps of presumed antecedent knowledge.
3. Present a static set of links in every email. These links could be an effective method to help users parse the presumed context necessary to make sense of the updates to policy detailed in these weekly Coronavirus Updates.

Specifically, the lack of direct communication information for follow-up also contributes to the disembodied nature of these messages. We recommend that university crisis communications provide contact information where recipients can ask questions and provide clarification, thus working against the unidirectional impulse of this information. Through this approach, the current communications and resources can not only address future concerns more seamlessly, but resources such as the Redbirds Return Plan (which is a separate policy document from the Redbirds Keep Learning Plan mentioned earlier) could be better optimized. Beyond direct communications, utilizing a linked FAQ section that is responsive to common questions and concerns may also be one way to extend the communication between the institution and the campus community related to these messages.

Finally, the suggestions we offer here are contextualized within our embodied realities as two white, able-bodied campus community members with certain degrees of privilege granted to us in these spaces. While we have identified several takeaways that we think could apply to most universities (particularly PWIs), there are undoubtedly more necessary changes that could be informed by the embodied realities of other members of the campus community, as well as institution-specific changes that would differ across universities. As such, we suggest that university crisis communicators actively seek feedback and perform usability testing on messages to better understand audience needs and optimize messages accordingly. Although this may not be possible for time-sensitive risk communication, such as with weekly crisis communication like we examine here, universities could develop concrete communication strategies and seek input on those documents. This can be through formal focus groups, or through more informal usability testing with a range of recipients, including, potentially, students, student workers, staff colleagues in different areas of the university, as well as a range of faculty across disciplines.

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ENDNOTES
1. ISU is a public university in the U.S. Midwest.
2. Including a visit from YouTube personalities the NELK Boys, whose presence led to huge maskless gatherings that had to be broken up by police (Swiech & Petty, 2020).
3. IWU is a private liberal arts university in the neighboring city of Bloomington, IL. Heartland Community College is also in Normal, IL, but their courses were mostly online for the Fall 2020 semester, and the majority of their students already live in the Bloomington/Normal area.
4. A nearby small liberal arts college, MacMurray College announced it would close permanently after the spring 2020 semester when most U.S. colleges and universities shifted to online instruction because they were unable to withstand the financial strain (Hobson & Hagan, 2020). Other institutions,
such as Illinois Wesleyan University began cutting humanities departments and programs in desperate and misguided attempts to save money and keep the university open (Cherney, 2020).

5. ISU runs a Facebook page for students’ families, and for most of 2020 it was full of angry parents complaining about online instruction. These parents were vocal about wanting the university to move back to 100% in-person instruction, even if it meant increasing risk to students, faculty, staff, and community members.

6. As Sellnow et al. (2009) explain, though risk and crisis communication are often used interchangeably, they refer to distinct types of messaging. Risk communication, broadly, is intended to avoid crises, and thus are forward-looking messages preceding a crisis event. Crises are, as Heath and O’Hair define, “risks that are manifested” (2010, p. 1). If the risk is unavoidable and comes to affect stakeholders, crisis communications mitigate and advise recovery following a crisis.

7. Although this certainly would not be true of all faculty and staff, some of whom may have been hired and started their jobs during the COVID-19 pandemic.

8. These numbers do not include students who identify as bi- or multi-racial because they are counted together under “two or more selections” (3.2%), although that category does not include Hispanic; 9.6% gave no response (Planning, Research, and Policy Analysis, 2019a).

9. Because students have only been able to identify outside of the male/female binary for a short time, we expect this number to rise in the coming years.

10. .8% identify as “two or more selections,” which does not include Hispanic; 9.6% gave no response (Planning, Research, and Policy Analysis, 2019b).

11. Further, there is also no data on other employees, such as janitorial and maintenance crews, who continued to work in person throughout the pandemic, nor do we know what kinds of crisis messaging these parties received.

12. Sparby’s colleague’s attempts in Fall 2020 to work (uncompensated) with some administrators to suggest ways to smooth over the parent-faculty divide that online teaching caused were all but ignored, so we are also not confident that approaching them to offer compensated assistance would have been welcome.

REFERENCES


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Experience Report
Streamlining Complex Website Design Using a Content Audit Selection Heuristic

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ABSTRACT
In this project experience report, we describe our experience working as researchers specializing in technical communication that informed the risk communication decisions for an interdisciplinary, grant-funded, risk communication website called HazardAware. We first discuss how content audits serve as a website design research method. Next, we provide our Content Audit Selection heuristic in a process flowchart format to enable communicators to understand how practical application of content audits serve as a formative tool to streamline the decision-making processes for complex website design content. Finally, we describe how we used the Content Audit Selection heuristic to inform the risk communication decisions for HazardAware.

CCS Concepts
CCS → Human-centered computing → Interaction design → Interaction design process and methods

Keywords
Content audit; Website development; Complex design; Risk communication

INTRODUCTION
When designing a website with complex scientific content, professional and technical communicators (PTCs) on a project team are often responsible for determining information usability. In interdisciplinary team projects, PTCs usually face additional challenges evaluating and communicating complex information designs both within the project team and with target audiences. This experience report describes how we used web content audits to inform the design of “HazardAware”—a website that is being developed as part of a three-year funded interdisciplinary project to provide information on natural hazards to help U.S. Gulf Coast renters, homeowners, and homebuyers increase their hazard resilience as it relates to housing. We describe the methods that we used for our content audits, provide a heuristic for using content audits in multisector or complex communication contexts, and discuss implications for our project and for communication design in general.

This project was developed in a risk communication context, specifically communication about natural hazard exposure and risk mitigation related to personal housing in the U.S. Gulf of Mexico states of Texas, Louisiana, Mississippi, Alabama, and Florida. This region is not only exposed to multiple natural hazards, most significantly severe storms, hurricanes, and floods, but also extreme heat, wildfire, and sinkholes (Gall et al., 2011). Per capita financial losses continue to increase over time despite government investment in mitigation (Gall & Friedland, 2020). Beyond direct financial losses, natural hazards affect people’s long-term wealth capacity, community ties, and mental and physical health. A community’s resilience to hazards measures its ability to “prepare and plan for, absorb, recover from, and more successfully adapt to actual or potential adverse events in a timely and efficient manner” (Cutter et al., 2014, p. 65). Importantly, individuals’ hazard resilience is mediated by personal, community, and governmental decisions, as well as historic social factors and the physical environment (Summers et al., 2018).

This project’s purpose is to gather, provide context for, and develop an index that summarizes hazard information for residential
buildings in the Gulf region. Individual risk-related decision-making is affected by risk perception, which includes personal confidence in scientific understanding of a hazard, relative discomfort with a hazard, and the hazard’s potential impact (Fischhoff, 2009). In addition, it is important to note that “people’s risk perceptions are determined by real and localized situations” (Grabill & Simmons, 1998, p. 419), including their personal experience of risk (Stephens & Altamirano, 2021) and potential socioeconomic marginalization.

The primary audience for the HazardAware website is individual residents who are interested in learning about and mitigating their risks; a secondary audience includes community planners, facilitators, and other organizational users who might use the information in a professional capacity. The website will provide information on the past hazard history and potential future hazard changes for residences in the study area. Website users will be able to look at a property, its overall risk, and how different hazards (e.g., wind or flooding) contribute to its risk. Then, they are able to see which options exist in terms of costs and benefits for mitigating hazards.

One challenge for the project team has been to determine how best to represent and provide context for different types of hazard data to make this information useful and engaging for users. The datasets the team members are working with vary in spatial and temporal scale; can be represented in text, numeric, or geospatial formats; and have broad thematic diversity. For example, the data includes historical information about past natural disaster locations and costs, current local building codes and state-level insurance information, and potential future changes to flooding due to sea level rise. In similar complex information settings, researchers have pointed out the importance of understanding possible transfer effects, such as users forming procedural expectations based on a new website’s similarity to a familiar one (Albers, 2009); carefully evaluating how to represent uncertainty, realism, and hazard impacts (Kostelnick et al., 2013); and balancing open user exploration with functions that support meaningful information seeking and decision-making processes (Richards, 2019).

Environmental risk communication involves diverse individual and social risk exposures and experiences that necessitate careful attention to communication design. The overall HazardAware design and development process includes several components to help the team understand both (1) user needs and preferences and (2) how online interactive data tools with a similar level of complexity have been structured. As the PTCs on the project team, our contribution focuses on helping the website development project team and the other investigators conduct formative and summative user-centered design (UCD) activities and conceptualize the design of the website. We used content audits for formative expert evaluation and combined this with scoping interviews with target users (Stephens & Altamirano, 2021) and summative usability testing to better understand audience needs, as suggested by Spyridakis et. al. (2005).

This experience report focuses on practical application of web content audits intended to inform our design understanding of similar interactive data visualization tools. During our search of the literature, we were challenged to find a large body of heuristics solely dedicated to content audits. In addition, the complexities of the project required us to leverage multiple content audits to achieve our goals. Therefore, this paper explains how our experience can serve as a framework for other PTCs in similar situations. Our primary goals in this paper are to: (1) provide an overview of content audits and their practical application in website design; (2) suggest a heuristic to help technical communicators incorporate content audits into complex website design; and 3) demonstrate how project teams can use content audits to inform website design for risk communication.

**CONTENT AUDITS FOR WEBSITE DESIGN**

Content audits are a research method that allows website design teams to systematically evaluate and analyze messaging and characteristics of a website or other product (Still & Crane, 2017), and can also be used as a decision-making tool to influence product design (Jones, 2009). Content audits are often positioned within a broader strategy for guiding website design. For example, Spyridakis et. al (2005) describes four types of methods for deriving and assessing web-design guidelines: (1) expert evaluations (including content audits) and automated evaluation tools, (2) usability tests, (3) surveys of users’ perceptions, and (4) true experiments conducted either in laboratories or remotely via the internet.

When we perform a content audit to support a website design project, we review and document either specific components or everything on one or more websites. Miller (2019) points out that “the content audit is likely to be perceived as the most time-intensive process for improving usability, mainly because it involves looking at everything on the website” (p. 214). The time PTCs invest in performing content audits can be considerable. However, they provide valuable details that allow website development teams to discuss which services or information should be included on the website and why (Miller, 2019). The literature often uses the terms “content audit” and “content analysis” interchangeably (Detzi, 2012; Jones, 2009; Still & Crane, 2017). In this paper, we make a distinction between these terms as they suggest, in terms of informing website design, different uses. For example, in this study we conducted two separate content audits of websites that had different thematic characteristics, and then analyzed these findings. Therefore, this paper uses the term “content analysis” referring to how we synthesized findings from two content audits. For example, in this study we conducted two separate systematic evaluations of website content (i.e., two content audits), and then analyzed these separate results by synthesizing the findings into an overall report. We therefore use “content analysis” to describe this overall synthetic reporting process.

There are multiple types of content audits. For example, Sperano (2017) identified 23 types and concluded with the strategic recommendation that “the determination of a type of audit will vary depending on the objectives to be achieved through the audit of content” (p. 6). For this project, we chose different types of content audits to align with the primary goal that we were trying to achieve during that phase of the web design project. Table 1 highlights common types of content audits and a brief description of the purpose or focus for each.

Guidelines for content audits are commonly found in checklist or heuristic format. For example, Brinck et. al (2002) provides a detailed usability-focused checklist consisting of four main audit categories, each containing a subset of questions that are designed to allow the reviewer to comprehensively review a website: (1) architecture and navigation, (2) layout and design, (3) content, and (4) forms and interaction. Nielsen (2020) offers a more general list of ten usability heuristics for user interface design, noting “they are called ‘heuristics’ because they are broad rules of thumb and not
specific usability guidelines” (n.p.): (1) visibility of system status; (2) match between system and the real world; (3) user control and freedom; (4) consistency and standards; (5) error prevention; (6) recognition rather than recall; (7) flexibility and efficiency of use; (8) aesthetic and minimalist design; (9) helps users recognize, diagnose, and recover from errors; and (10) help and documentation.

When strategizing content audits for complex web design, PTCs need to focus on more than general content audit guidelines. While guidelines describe how to conduct a content audit, they do not describe how to integrate multiple types of content audits into the product design cycle. We argue that overall website design strategy requires a mixed methods approach for integrating various content-based elements, including usability, user interface design and information architecture (IA). We found that a mixed-methods approach supported the interdisciplinary, complex, and dynamic research for this project, which also encompasses a content domain that “often can be better informed by the use of multiple methods” (Johnson & Onwuegbuzie, 2004 p. 15). For similar complex projects, we recommend that PTCs implement content audits as a mixed-methods approach that complements a comprehensive iterative website design strategy. At each respective project stage, PTCs can select a content audit type that aligns with their website design goal(s). These findings then inform the next stage of testing in a “holistic approach” (Miller, 2019, p. 214) toward addressing problems in different stages of the project.

Examining the IA components of a website is key to understanding the features and functionality that designers can apply in their own project. Content audits provide communicators with a means of identifying, describing, quantifying, and assessing content (Getto et al., 2019), which they can use to examine website IA components including overall shape of information, information “chunking,” and navigation (McCool, 2006). While content audits are valuable at any time during the life of content (Halvorson, Rach, 2012), website design teams will typically conduct content audits during one or more website design stages, including during a website redesign or the initial stages of website wireframing. For the HazardAware project, our goals for the content audits were to inform our risk communication strategy by understanding (1) how risk was visually represented on websites whose communicative purpose was like that of HazardAware and (2) how risk was contextualized for target audiences. This included using the content audit to evaluate websites’ (1) informational content, (2) balance of images and text, and (3) interactive features (Detzi, 2012). The user experience (UX) design process is all about ensuring that no aspect of the user’s experience with the product happens without the designer’s conscious, explicit intent (Garrett, 2010). Content audits fit in to a broader strategy of UCD as an analytical tool to evaluate a website and are a first step in capturing important insights into UX that will impact the UCD choices that we will make on the project website.

**CONTENT AUDIT SELECTION**

**HEURISTIC FOR COMPLEX WEBSITE DESIGN**

As described in the introduction, we identified several published heuristics for website design, but none focused specifically on how to incorporate multiple types of content audits into different stages of project development. Here, we present the Content Audit Selection heuristic (Figure 1), which is a process flowchart that recommends communicators working on complex website design projects: (1) identify goals, (2) determine the type of audit, (3) prioritize goals, (4) conduct the audit, (5) assess audit results, and (6) synthesize audit results.

The intent of our heuristic is to help professionals streamline the complexities involved with planning and/or evaluating content to inform website design. Focusing on one major project goal or initiative for each content audit (e.g., in Part I we focused on interactive mapping tools) yields several benefits for the entire project team. First, this helps to simplify the project’s complexities while prioritizing and fulfilling the website design project deliverables. Second, this makes it easier for PTCs to target interdisciplinary areas that intersect with website design (e.g., our content audits focused on usability, user interface design, web design and IA). By centering the decision on which of the project goals to prioritize first, this heuristic should facilitate the design of content audits to provide actionable insights that answer important questions for website design strategy. Finally, communicators can apply this heuristic during various stages during the website design production cycle simply by implementing a new content audit strategy. Ultimately, this heuristic offers a simplified problem-solving approach for communicating complex web-design content that supports the goals of both the internal and external project stakeholders (e.g., research team members, funding agencies, members of intended audiences). In the next section, we discuss

**Table 1: Examples of different types of content audits.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Purpose/focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparative content audit (Rockley et al., 2003)</td>
<td>Content audit in which you compare like information among multiple websites (e.g., website content about a single product or service).</td>
</tr>
<tr>
<td>Competitor analysis (Still &amp; Crane, 2017)</td>
<td>Like a comparative content audit, but instead centers on understanding competitor products with a goal to directly compete via product design.</td>
</tr>
<tr>
<td>Content quality (Land, 2014) or Qualitative audit (Halvorson &amp; Rach, 2012)</td>
<td>Assesses various content-related criteria including relevance, consistency, messaging, and whether easy-to-read or scan to determine if it represents brand standards, guidelines, or personas.</td>
</tr>
<tr>
<td>Quantitative audit (Halvorson &amp; Rach, 2012)</td>
<td>Provides an overview of website content including what type of content (text, images, video, etc.), how it is organized, and where it is located (e.g., URL and/or menu).</td>
</tr>
<tr>
<td>ROT (Redundant, outdated, or trivial) analysis (Bloomstein, 2012)</td>
<td>Helps you create more valuable content by identifying content that is redundant, outdated, or trivial.</td>
</tr>
</tbody>
</table>

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how we applied this heuristic to our project.

**USING THE CONTENT AUDIT HEURISTIC FOR RISK COMMUNICATION WEBSITE DESIGN**

We used the Content Audit Selection heuristic and its corresponding six steps to simplify the risk communication complexities for the HazardAware website design. In the first step, we identified that our goals for the HazardAware content audits were to (1) examine how websites with a similar purpose visually depicted risk and (2) understand how (e.g., with visual or text annotations) these websites contextualized map-based information for target audiences. We conducted content audits during the formative stages of website design.

As we were concluding the initial content audit, other members of the project team shifted design focus. Rather than primarily focusing on interactive risk maps, they developed a communication strategy primarily focused on individual building-based information with, as a secondary component, community-level maps of flooding (and other hazards). Therefore, Part I of the content audit focused on risk information depicted on interactive risk maps, and Part II focused on textual and other types of visual communication conveyed on risk maps and real estate websites.

We implemented two types of content audits. Part I was a content inventory audit of flood risk websites that allowed us to perform quantitative and qualitative assessments of content (Martin et al., 2012). Part II was a comparative content audit of flood risk and real estate websites that allowed us to compare content features and functionality between flood risk and real estate website genres.

When choosing comparable websites to audit, we prioritized those that had the same intended audience as the HazardAware website, which included (1) property owners, renters, and prospective homebuyers and (2) community decision makers and policy makers. For the Part I audit, we focused on flood risk websites, both because flooding is one of the main hazards in the project area and because there are multiple existing websites that display flood-related information (Richards, 2019; Stephens et al., 2014, 2015). The Part II audit compared flood risk websites and real estate websites. Real estate websites have developed various strategies...

**Figure 1: Content Audit Selection heuristic. Shaded boxes represent PTC-led project activities and unshaded boxes represent collaborative decision-making steps with other members of the project team.**
for exploring the features and functionality during the content audit; and, many individual residents (e.g., homeowners, homebuyers, renters) are likely to be at least somewhat familiar with using real estate websites to research purchasing and/or renting properties.

The Part I audit involved 11 flood risk websites, and Part II involved two flood risk websites and five real estate websites (see Table 2). Two flood risk websites were examined in both Part I and Part II; in Part I we focused on those sites’ interactive flood maps, and in Part II we focused on built-infrastructure features (primarily buildings). We collected, in accordance with the appropriate content audit, extensive data for each website. This included content audit website names, developing organizations, genres, the part of the content audit in which they were examined, and URLs.

After completing a content audit, the next step for researchers is to perform a content analysis, which allows researchers to “analyze relatively unstructured data in review of the meanings, symbolic qualities, and expressive contents they have and of the communicative roles they play in the lives of the data’s sources” (Krippendorff, 2013, p. 49). After we completed each audit, we analyzed the findings, which allowed us to examine patterns and unique attributes within the data sources and how they structured their communication. We then synthesized our findings into a written report that we distributed to the HazardAware project team.

**Part I Content Inventory Audit: Understanding Flood Risk Websites**

PTCs have the flexibility to use a variety of strategies for content audit design (Sperano, 2017). Our initial strategy was to use the Part I content audit as a first step to capture important insights into UX that would impact the UCD choices that the website development team would make for the HazardAware website. We chose a content inventory audit because it allowed us to index content from natural hazard risk communication websites, identify the potential challenges that our target audience(s) could encounter while using a risk communication website, and understand the organizational structure of websites with similar target audiences, which we wanted to use to inform the IA of HazardAware. This approach helped us identify major topical content areas and explore possible organization schemes that we could use as a model for providing access to that content (Rosenfeld, Morville, & Nielsen, 2002). We had two goals for examining these data sources: (1) to understand how they visualize risk and (2) to evaluate their contextual value.

We selected 11 websites (Table 2) that visually depicted for users flood risk using interactive maps and other tools. These sources were selected because they all include the Gulf region in their spatial extent, and because they encompass a range of types of risks, intended purposes, and risk visualization techniques. We also aimed to find data sources that enabled users to make their own choices on how to engage with the scientific data on the website. We selected data sources by drawing from an initial list of flood risk tools previously examined by Stephens et al. (2014, 2015), and then asking for additional recommendations for flood risk tools from members of the overall project team. The Part II audit compared flood risk websites and real estate websites. Real estate websites employ various strategies for displaying information about individual buildings that the project team wanted to build upon. Additionally, many individual residents (e.g., homeowners, homebuyers, renters) are likely to be at least somewhat familiar with using real estate websites to research purchasing and/or renting properties.

Our first goal was to evaluate the direct risk representation features and functionality of the flood risk websites so that they could help us consider how we could enhance user engagement and promote insight into these risks in HazardAware. Therefore, we focused on three main subcategories: (1) types of risk displayed on the website, (2) how risks were operationalized, and (3) how risks were visualized. For the first category, types of risks, we audited data sources that used interactive maps to depict flood risk, but some included specific categories of flooding, such as sea-level rise, and/or additional risks. The second category, risk operationalization, was concerned with how risk was numerically or categorically described (e.g., whether described as the percent chance of flooding vs. a high, medium, or low chance of flooding). The third category we explored was how these sources chose to visualize risk on maps, (e.g., by color shading, numeric values). Fourth, we looked at the described target audiences for each data source (e.g., the general public, risk management decision-makers, insurance professionals). The subsequent table (see Table 3) summarizes data categories and items that we reviewed for the content inventory audit, along with a representative example of the types of features we evaluated.

Our second goal was to understand features that might help our intended audiences use or interpret via context-related features the risk information. These features give users context so that they can understand risk. Map-based visualizations have varying levels of risk communication effectiveness, which can create issues for website users’ ability to understand and interpret the scientific data. Specific issues that relate to map-based visualizations of SLR information include context of use, probability and risk, and geographic location (Stephens et al., 2017). We wanted to ensure that the visualization tools we developed for the HazardAware website were effective; the project design goal was to communicate complex science-related issues that include risk-related decision making. Therefore, we aimed to use this content inventory audit to capture specific map-based visualization features that we would consider as being either effective or problematic for website users. We captured information on the following nine subcategories of risk context features: (1) disclaimers, (2) annotations, (3) default/ starting views, (4) additional map views/features, (5) sharing features, (6) external links, (7) multimedia and/or printer-friendly features, (8) downloadable content, and (9) other features.

After tabulating our data in a spreadsheet, we performed an analysis of each website’s content, including their textual, visual, and interactive mapping features. Within each of the subcategories of data described above, we looked for patterns of similarity and major differences between websites. We evaluated trends in risk representation and contextual factors, summarized them, identified novel or unique features, and provided recommendations for features that the HazardAware project team might consider to inform our website design. The results of the content analysis were presented to the rest of the HazardAware project team in a report format. Our findings influenced website design discussion in several project areas, which included (1) possible website features, (2) the methods and data that these sources used, (3) how we could develop future flood risk information for the HazardAware website, and (4) appropriate timelines for depicting future flood risks (e.g., 15 years, 30 years).

Our focus was to determine the strategies for depicting risk and contextualizing risk that would be the most effective to enable our target audience to better understand the information on the HazardAware website. For example, we found that flood risk
websites differed in the types of risks that they chose to depict on interactive maps. Most of the sources focused on either only flood risk or a combination of flood risk and sea-level rise. Three sources included additional risks in interactive maps: Buyers Be-Where (flooding, hurricane, and hazardous waste), Coastal Resilience (flooding, sea-level rise, and storm surge), and Louisiana FloodMaps Portal (both flood and wind hazards). We wanted to ensure that the website visualizations we chose for this project communicate risks effectively and in such a way that they support accurate mental models of risk dynamics (Stephens et al., 2017). Therefore, this content audit allowed us to document and analyze features that influenced the decision-making process for implementing features for the HazardAware website design.

<table>
<thead>
<tr>
<th>Website name, developing organization</th>
<th>Website genre</th>
<th>Content audit part used in</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aqueduct Floods, World Resources Institute (WRI)</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>wri.org/applications/aqueduct/floods</td>
</tr>
<tr>
<td>Buyers Be-Where, Texas A&amp;M University</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td><a href="https://portal.texascoastalatlas.com/buyersbwhere/landingpage/">https://portal.texascoastalatlas.com/buyersbwhere/landingpage/</a></td>
</tr>
<tr>
<td>Coastal Resilience, TNC and various partners</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>maps.coastalresilience.org</td>
</tr>
<tr>
<td>Digital Flood Insurance Rate Map of City of Galveston, City of Galveston, Texas</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>arcgis.com/apps/webappviewer/index.html</td>
</tr>
<tr>
<td>FEMA's National Flood Hazard Layer (NFHL), FEMA</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>fema.gov/flood-maps/national-flood-hazard-layer</td>
</tr>
<tr>
<td>Flood Factor, First Street Foundation</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit &amp; Part II: Comparative Content Audit</td>
<td>floodfactor.com</td>
</tr>
<tr>
<td>Flood Smart, FEMA &amp; National Flood Insurance Program</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>floodsmart.gov</td>
</tr>
<tr>
<td>Louisiana FloodMaps Portal, LSU Louisiana State University AgCenter</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>lsuagcenter.com/floodmaps</td>
</tr>
<tr>
<td>National Storm Surge Hazard Maps, NHC/CPHC</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>nhc.noaa.gov/nationalsurge</td>
</tr>
<tr>
<td>Sea Level Rise Viewer, NOAA Coastal Service Center</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit</td>
<td>coast.noaa.gov/slr</td>
</tr>
<tr>
<td>Surging Seas Risk Finder, Climate Central</td>
<td>Flood risk</td>
<td>Part I: Content Inventory Audit &amp; Part II: Comparative Content Audit</td>
<td>riskfinder.climatecentral.org</td>
</tr>
<tr>
<td>Realtor, National Associations of Realtors</td>
<td>Real estate</td>
<td>Part II: Comparative Content Audit</td>
<td>realtor.com</td>
</tr>
<tr>
<td>Redfin, Redfin Corporation</td>
<td>Real estate</td>
<td>Part II: Comparative Content Audit</td>
<td>redfin.com</td>
</tr>
<tr>
<td>Trulia, Zillow, Inc</td>
<td>Real estate</td>
<td>Part II: Comparative Content Audit</td>
<td>trulia.com</td>
</tr>
<tr>
<td>Walk Score, Walk Score Inc.</td>
<td>Real estate</td>
<td>Part II: Comparative Content Audit</td>
<td>walkscore.com</td>
</tr>
<tr>
<td>Zillow, Zillow, Inc.</td>
<td>Real estate</td>
<td>Part II: Comparative Content Audit</td>
<td>zillow.com</td>
</tr>
</tbody>
</table>

Table 2: Websites examined during content audits.
Part II Comparative Content Audit: Comparing Flood Risk and Real Estate Websites

As we were completing the Part I content audit, the overall project team shifted how they envisioned communicating risk in HazardAware from a primarily map-focused strategy to one that combined text, graphs, and some map-based information similar to the types found on real estate websites. In response to this shift, we identified a new goal for the Part II audit: to compare non-map based communicative features of selected flood risk and real estate websites. We selected this goal to provide possible models for depicting building-level information on housing and risk, in contrast to the community-level scale of information that is depicted in most flood risk websites. We identified two flood risk websites from our Part I audit that displayed flood risk at a building-level scale, as well as five real estate related websites that included community and building specific details (see Table 2). Our strategy was to compare how these websites primarily communicated building-level information, as well as community-level information that provided context about specific homes.

Our content audit process was like that in Part I: after selecting websites to analyze, we gathered information on specific subcategories of information, performed an analysis of content within each genre of website (flood risk and real estate), summarized results, and provided recommendations for the project team. When evaluating the flood risk websites, our primary focus was on features other than interactive maps, as we had previously analyzed those during the Part I audit. We looked at three subcategories of features: (1) community risk types and population, (2) other additional community-level details, and (3) building-level features. For the real estate websites, we explored seven subcategories: (1) nearby features on interactive maps, (2) interactive transit maps, (3) additional community details, (4) building-level details, (5) home-ownership costs, (6) additional home specific features, and (7) other building-level features. In addition, we made notes relating to how multi-metric scores were depicted (e.g., a “Walk Score” that measures neighborhood walkability). The subsequent table (see Table 4) provides examples of community-level features and building-specific features that we documented using our comparative content audit.

When analyzing the Part II data, we evaluated the data sources and compiled our findings in two parts: flood risk and real estate data sources. For each part, we detailed our findings independently for individual building-level and community-level features. This section briefly highlights the categories and standout features that we reported on for the Part II comparative content audit.

Building-level findings
Capturing building-level information was important because the project team envisioned our audience primarily being interested in researching hazard information for their own home or for a home they are considering purchasing. While exploring building-level details, we looked at two subcategories of features: risk communication details and data sources. Risk communication focused on the way that the website communicated risk and data sources referred to the sources that these websites used to depict risk. When performing a comparative content audit for the HazardAware website, we reviewed several building-level categories and specific items for each website genre (see Table 5).

Community-level findings
We also envisioned that the HazardAware audience would be interested in community-level risk information, such as the scope of flooding beyond their own home or the history of wind damages in their neighborhood. While exploring community-level details, we looked at three main categories of features: community details, community risk, and data sources. Table 6 provides an overview of the community-level categories and specific items that we

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Table 3: Summary of content audit categories reviewed in the Part I Audit, with an example of the types of data collected for each category.

<table>
<thead>
<tr>
<th>Category</th>
<th>Item/Description</th>
<th>Example (Source: Aqueduct Floods)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source details</td>
<td>Website name, affiliated organization, URL</td>
<td>Affiliated organization: World Resources Institute (WRI), Netherlands</td>
</tr>
<tr>
<td>Risk visualization</td>
<td>Type(s) of risk, how risk is operationalized (e.g., % risk of flooding, high/medium/low chance, etc.), how risk is visualized (e.g., color shading, numeric, “stoplight”), intended audience (e.g., homebuyers, sellers, professionals, etc.)</td>
<td>Type(s) of risk: Coastal flooding and riverine flooding</td>
</tr>
<tr>
<td>Mapping and search functionality</td>
<td>Map resolution (e.g., house level, neighborhood level, city level), Ability to search by address (yes or no), default/ starting view, disclaimer, annotations (e.g., help text), additional map views/features</td>
<td>Resolution: Neighborhood level</td>
</tr>
<tr>
<td>Additional features/content</td>
<td>Sharing features (e.g., ability to share maps on social media), external links, multimedia and/or printer-friendly features, downloadable content</td>
<td>Downloadable content: The Download icon allows users to embed the widget or download as CSV, JSON, image, or report.</td>
</tr>
<tr>
<td>Additional notes</td>
<td>Other features (features not previously categorized that may be of interest), notes (additional miscellaneous observational notes)</td>
<td>The Aqueduct Flood tool allows users to understand and identify current and future water risks to agriculture and food security.</td>
</tr>
</tbody>
</table>

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reviewed. By researching these website features, we were able to gain a better understanding of how these two genres depicted community risks. When performing a comparative content audit for the HazardAware website, we reviewed several items within each main category for each website genre (see Table 6).

Our findings first helped us to maximize our communication effectiveness with our target audience by helping us to understand the characteristics of flood risk and real estate websites. We also identified specific organizational strategies and features that we could adapt for the HazardAware website. For example, flood risk websites communicate community-level risk using different strategies, and our audit helped inform the team’s discussion about how HazardAware might address this issue. Other features from real estate websites, such as the ability to generate a custom report about a home or look at a multi-metric index like a Walk Score, have also informed the project team’s conversations about analogous features for the HazardAware site.

**CONCLUSION**

As our case study illustrates, it can be a complex task to incorporate different types of content audits into the evaluation and design of a new informationally complex website. Our heuristic is intended to provide guidance to PTCs to help them work out how to integrate content audits into the formative stages of website design. By breaking the content audit process into primary goals, identifying the type of information needed to address each goal and type of

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### Table 4: Examples of community-level and building-specific features identified in the Part II Content Audit.

<table>
<thead>
<tr>
<th>Data Source Name/Genre</th>
<th>Community-Level Features</th>
<th>Building-Specific Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realtor (Real Estate)</td>
<td>Closest grocery stores, transit map information included: traffic, public transit, and bike lines</td>
<td>Default map view of the home included an image of the front of the home with a 360-degree view. Listed the last sold date of the home.</td>
</tr>
<tr>
<td>Surging Seas (Flood Risk)</td>
<td>Community population defined as Caucasian, Hispanic, etc. and depicted in social vulnerability (e.g., low, medium).</td>
<td>Includes home value and provides state level flood risk resources.</td>
</tr>
</tbody>
</table>

### Table 5: Summary of building-level categories and specific items from the Part II Content Audit.

<table>
<thead>
<tr>
<th>Website genre</th>
<th>Main Category</th>
<th>Subcategory</th>
<th>Item/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate</td>
<td>Building specific details</td>
<td>Risk communication</td>
<td>Status (e.g., on market, sale pending, etc.), building type, building square footage, lot square footage, # of beds and baths, stories, year built, year renovated, county, last sold, estimated home value, mortgage payment, comparable nearby homes, HOA dues, utilities and maintenance, property taxes, homeowner’s insurance, neighborhood median price.</td>
</tr>
<tr>
<td>Real estate</td>
<td>Building specific details</td>
<td>Risk communication</td>
<td>Default home view, other home vies, default map view, other map view(s), other home ownership costs, interior features, exterior features/taxes/assessments, property/lot details, property/price history, real estate sales, median rent, additional building specific details.</td>
</tr>
<tr>
<td>Real estate</td>
<td>Additional features</td>
<td>Risk communication and data sources</td>
<td>Other features, notes.</td>
</tr>
<tr>
<td>Flood risk</td>
<td>Building specific details (documented in Y/N format)</td>
<td>Risk communication and data sources</td>
<td>Future flood risk to homes, home value, state-level resources.</td>
</tr>
<tr>
<td>Flood risk</td>
<td>Building specific details</td>
<td>Risk communication</td>
<td>Future flood risk to home types (e.g., description of the types of risks they depict risk).</td>
</tr>
<tr>
<td>Flood risk</td>
<td>Additional features</td>
<td>Risk communication and data sources</td>
<td>Other features, notes.</td>
</tr>
</tbody>
</table>
We were able to use content audits to inform the design decisions for the HazardAware website. Ultimately, we found that using content audits allowed us to simplify the complexities of the HazardAware website design and streamlined our ability to make risk communication decisions for the project. Content audits enabled us to (1) communicate website features and functionality to the broader project team, (2) articulate how other designers have addressed challenges related to website features and data limitations, and (3) develop systematic report results to streamline collaboration with the scientific and creative project teams. In addition, we found that the comparative content audit strategy can be especially useful for complex website design and for projects that have an interdisciplinary focus, as it can help us make connections to different genres within the website scope.

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Digital Humanities and Technical Communication Pedagogy: A Case and a Course for Cross-Program Opportunities

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ABSTRACT
Technical communication instructors, especially those with expertise in visual rhetoric, information design, or multimedia writing are well-suited to teach an introductory Digital Humanities (DH) course. Offering a DH course provides an opportunity to reach extrafield audiences and work with students from a variety of humanities disciplines who may not have the option of taking such a course in their home department. The article advocates for a DH course that offers a methods-driven pedagogy that engages students with active learning by requiring them to research, dissect, and report on existing DH projects, as well as work with existing datasets and methods from prior student research projects or existing DH tools. The sample student project reviewed here uses the data visualization software ImagePlot, and discussion includes how the student used the tool to examine changes in brightness, hue, and color saturation, as well as calculate the total number of distinct shapes from 397 comic book covers. Ultimately, the students are tasked with developing a research question and moving to an articulated methods-driven approach for exploring the question. The student project along with the tools and sample datasets available with them are treated as a module that may be included in an introductory DH course syllabus or training session.

Keywords
Digital Humanities, Technical Communication, Pedagogy, Research Methods, Data Visualization

INTRODUCTION
In 1979, Carolyn Miller published her often cited claim for the humanistic value of technical writing, a field, she argued, that needed to shake off a “positivist legacy” and (re)position the rhetorical tradition at its core (p. 611). On one hand, technical writing was guilty by association with the long traditions of Descartes and Bacon. The field inherited a legacy of science understood as an empirical endeavor in pursuit of singular, verifiable answers. Technical writing was perceived as solely in the service of producing a “windowpane of language” through which readers may see the unobstructed results of well-executed science (Miller, 1979, p. 613). On the other hand, Miller argues, it was the field’s own pedagogical practices that were perpetuating positivism by confining the role of writing to matters merely of form and style. Her article outlines several steps for reparations including reemphasizing the rhetorical canon of invention. Miller concludes: “Good technical writing becomes, rather than the revelation of absolute reality, a persuasive version of experience. To continue to teach as we have, to acquiesce in passing off a version as an absolute, is coercive and tyrannical; it is to wrench ideology from belief” (p. 616). To embrace technical writing as rhetorical, then, is to replace an absolute reality with one that is probable, contingent, and constructed.

Miller’s article is more than 40 years old, and technical writing, with its evolution into technical and professional communication, has blossomed as an academic field and as a profession (Kynell-Hunt & Savage, 2003, 2004; Rude, 2009). Academic researchers and instructors in the field do largely see their work as “based in rhetoric,” but they have also become comfortable with borrowing and then teaching research methods from the sciences and social sciences including “psychology, anthropology, sociology, and related approaches” (Spinuzzi, 2003, p. 5). In other words, rhetoric often serves as a methodology and is paired with research methods.
adapted from other fields. Spinuzzi (2003) offers a reminder that the two terms should not be used interchangeably: “A method is a way of investigating phenomena; a methodology is the theory, philosophy, heuristics, aims, and values that underlie, motivate, and guide the method” (p. 7, italics in original). Employing rhetoric as an underlying theory that informs technical communication research helps balance the tension of using methods that may appear to a humanist as overly scientific or “to an extent even positivistic” (Porter, 2013, p. 133). As a humanistic pursuit, technical communication has come to terms with an epistemology that can leverage scientific methods without succumbing to scientism.

This article begins with the premise that the burgeoning field of the Digital Humanities (DH) wrestles with similar epistemological concerns and, like technical communication, can better address those concerns by making specific adjustments to its approaches to pedagogy including overt attention to research methods and methodologies. The additional claim is that technical and professional communication instructors are uniquely positioned to offer methods-driven courses to a broader range of students than they currently do. Literature, history, art history, geography, political science, and other majors should be offered access to coursework that provides instruction on a range of computational research methods while also making room for their own humanities field-specific topics and pursuits. Even if this instruction is being offered in the home departments of these majors, technical communication has evolved from a rhetorical tradition that has successfully integrated computational research methods. The result leaves instructors with a “tactical” advantage across humanities disciplines.

Kirschenbaum originally identified DH as “tactical” as it is “unabashedly deployed to get things done” (2012a, p. 415). In the introduction to their collection, Rhetoric and the Digital Humanities, Ridolfo and Hart-Davidson seize on this tactical quality for rhetoric and writing fields including technical communication by suggesting researchers reiterate their projects “under the umbrella of DH in order to leverage funding, institutional recognition, and extrafield audiences” (2015, p. 4). Technical communication instructors offering courses in digital rhetoric, visual communications, information design, and multimedia writing courses often offer DH instruction in all but name. E.g., see Stephens’s (2019) Narrative Information Visualization course wherein she expands on Ferster’s (2013) “ASSERT” framework of ask a question, search for evidence, structure information, envision an answer, represent data, and tell a story. The tactical advantage of being able to appeal to “extrafield” majors is significant especially when technical communication programs are housed within English departments or operate within what has been described as the “English as host” model (Yeats & Thompson, 2010, p. 226). At the author’s institution, the professional writing program, which includes an MA as well as an undergraduate concentration, is housed within the Department of English. Graduate students from the department’s MFA program and the MA and PhD in English programs frequently enroll in professional writing courses for not only the courses’ content but also their perceived utility. Like DH, these courses have a reputation for getting things done in the humanities and have curricula featuring a mixture of theory and practice. For more than a decade, the professional writing faculty have been offering a course titled Humanities Computing and, in an adjustment that can only be described as tactical, recently renamed the course as Introduction to the Digital Humanities.

This article starts with a brief overview of issues and challenges surrounding DH pedagogy including a claim that the field’s initial concerns over, and even resistance to, methods-driven, computational research are challenges that technical communication has overcome. DH, too, is making progress with efforts to more directly confront the anxiety surrounding the importing of scientific methods into humanistic studies such as English. Just a few years ago, arguments against the field’s embrace of technology, along with the scientific and computational methods that outline its use, had gone as far to suggest that DH was part of a larger “neoliberal takeover of the university,” and that it promoted a “redefinition of technical expertise as a form (indeed, the superior form) of humanist knowledge” (Allington et al., 2016, paras. 1 & 3). Literary scholars and librarians active in DH have pushed back on these claims (Greenspan, 2019; Underwood, 2016; Varner, 2016), but suspicions and critiques of computational research conducted within the humanities, in particular literary studies, continues within the DH community (Da, 2019b; Hoover, 2016). While technical communication has its own challenges within both academia and industry, it also has “long-running ties to digital technology as both object and medium of inquiry” (Ridolfo & Hart-Davidson, 2015, p. 2). The recommendation here is that technical communication continues its own critical engagement with humanities computing practices while also working to push to normalize the presence of humanities computing practices by way of embracing a methods-driven pedagogy.

The course discussed in this article is an introduction to DH course suitable for advanced undergraduate or master’s-level students that is explicitly methods-focused and includes suggested readings and course activities. The article offers details from a student project that employed different DH tools, as well as a discussion on how students developed research questions and methods for tackling their projects. The student project demonstrates the movement from a research question to an articulated methods-driven approach for exploring the question. Also, access to sample datasets early in the semester is key to student success later in the course. It is indeed true that “any old data will not do,” so the focus here is on selecting data that students can work with to form meaningful questions and devise methods for pursuing answers (Goldstone, 2019, p. 214). This discussion is not meant to be overly prescriptive but offers more of a “lessons learned” reflection from attempting this pedagogical approach. The student project is treated as a module that readers could insert into a DH course populated with a variety of topics and tools.

**DH PEDAGOGY**

The DH community makes room for reflections on itself including extensive definitional debates regarding what counts or qualifies as DH (Alvarado, 2012; Berry, 2012; Kirschenbaum, 2012b; Liu, 2013; Svensson, 2012). These debates can showcase an anxiety that “the importance of human hermeneutic interpretation potentially diminishes” as we embrace digital methods (Evans & Rees, 2012, p. 21). For academics, these discussions have helped advance the field, even if that advancement has led some to conclude that “DH’s resistance to definition may be its most unifying trait” (Ingraham, 2015, p. 11). With a history of focusing on definitions and terms, accusations have been made that “teaching and learning are something of an afterthought for many DHers” (Brier, 2012, pp. 390–391). Arguably, though, there has been more recent attention to DH pedagogy (Fyfe, 2016; Goldstone, 2019; Hirsch, 2012; Jukacki & Faull, 2016; Norton, 2019) and even an overt acknowledgement.
by some that “DH pedagogy at the undergraduate and graduate levels is essential to the futures of our [humanities] fields” (Cordell, 2016, p. 460). The argument here is that in an introductory course, students are better served by not wading into extensive definitional debates. Instead, students first receive open acknowledgement that teaching digital methods of any kind is challenging and, second, are provided with a transparent plan for a DH course’s pedagogical strategy for meeting those challenges (Goldstone, 2019). The objective is to maximize time for concentrated methods-driven DH instruction and training.

According to some leading scholars in the field, limited access to DH training is exactly what is slowing the field’s advancement. In, “Digital Humanities as a Semi-Normal Thing,” Underwood notes: “At most universities, grad students still cannot learn how to do distant reading. So there is no chance at all that distant reading will become the “next big thing”—one of those fashions that sweeps departments of English, changing everyone’s writing in a way soon taken for granted. We can stop worrying about that” (2019, p. 97, italics in original). Distant reading has expanded to include a variety of methods and approaches to studying large corpora of written and visual “texts.” As defined by Moretti, it allows researchers to “focus on units that are much smaller or larger than the text: devices, themes, tropes – or genres and systems” (2000, p. 57). The patterns that can emerge from a distant reading of, say, thousands of novels can expand our analysis of the literary canon well beyond what is typically possible with traditional close readings of texts. Of course, distant readings of all kinds also require separate instruction. But, rather than spending time lamenting the absence of instructional and curricular opportunities for students to do DH work such as distant reading or a quantitative analysis of literary corpora, Underwood takes solace in DH having established even a minimal foothold within the humanities. He concludes that the absence of instructor training impedes the progress of DH more than lingering controversies over computational methods.

But if there is not yet enough DH training available there is arguably an increasing amount of it. The more established venues for DH training have blossomed in both size and scope. For example, the archive of the Digital Humanities Summer Institute (DHSI) hosted each year at the University of Victoria, Canada, dates back to 2001. While 20 years ago the institute offered just a handful of sessions, DHSI 2021 had 47 unique sessions ranging from “Programming for Humanists” to “Introduction to Web Scraping” to pedagogy sessions such as “Critical Pedagogy and Digital Praxis in the Humanities” (“Course Archive (2001-2021),” 2021). Those that subscribe to the DHSI email listserver or follow the institute on Twitter @DHInstitute know that the organization frequently shares information about DH-related events, jobs, and calls for proposals. This fall, reminders went out on the DHSI listserv for “GIS Days 2021,” a five-day, online conference facilitated by Western University in collaboration with other universities across Ontario, Canada. This free event catered to all skill levels and the organizers emphasized that “Everyone from anywhere in the world is welcome” (F. Berish, personal communication, November 10, 2021). Other DH organizations that formed originally with regional audiences in mind now, out of necessity, moved to virtual formats that enable broader participation. For example, Keystone DH hosted their first conference in 2015 at the University of Pennsylvania and their mission focuses on “advancing collaborative scholarship in digital humanities research and pedagogy across the Mid-Atlantic” (About, n.d.). Their 2020 conference hosted by Temple University was cancelled due to the pandemic but ran virtually for three days in July of 2021.

As the audiences, topics, and training opportunities expand, there are examples of the field doing more to ensure space for marginalized voices. Jim Casey and Kevin Winstead, both with the Center for Black Digital Research at Penn State University and the Colored Conventions Project, delivered their keynote at the 2021 Keystone DH conference titled, “What can Black digital humanities be? Movements, Collectives, Principles.” The presentation is available from the Temple University library and contains outstanding resources including crowd-sourced teaching materials at #BlackDigitalSyllabus (Temple University Libraries | Past Program and Event Videos, n.d.). Participants at DHSI 2021 had access to sessions such as “Race, Social Justice and DH: Applied Theories and Methods” and “Pedagogy of the Digitally Oppressed: Anti-Colonial DH Critiques & Praxis.” These sessions, the training they provide, and the scholarship they help produce and promote are essential to the field for keeping our “reliance on digital tools” in check by Noble (2019, p. 27). As Noble explains in “Toward a Critical Black Digital Humanities,” we must critique the development and deployment of our digital tools lest our dependence on them inadvertently “exacerbate existing patterns of exploitation and at times even creates new ones” (2019, p. 27). In other words, there is a danger of replicating old, oppressive practices with and through new digital tools and methods. Risam (2018), offers a similar warning in New Digital Worlds stating that “‘new’ methodologies, are not conjured out of thin air by digital humanities practitioners, but are built on the histories and traditions of humanities knowledge production that have been deeply implicated in both colonialism and neocolonialism” (2018, p. 4). Chapter four of her book is dedicated to “Postcolonial Digital Pedagogy” and discusses specific projects Risam has worked on with her students that actively demonstrate the “geographical and spatial dimensions of postcolonial writing” (109). Her projects show how changes to our pedagogy may actively alter and even supplant entrenched practices. Risam contends that “postcolonial digital humanities pedagogy facilitates the development of twenty-first-century literacies and positions students to be critical readers and creators of knowledge as they learn about the politics that surround knowledge production and how they can intervene in it” (2018, p. 108).

Scholars in technical and professional communication have been making their own interventions and there is a productive parallel with this field’s recent social justice turn. In 2016, Jones, Moore, and Walton began to shed light on what gets left behind collectively when the field is “most concerned with objective, apolitical, acultural practices, theories, and pedagogies” (2016, p. 212). The problem with the field placing a premium on such a pragmatic understanding of itself is that the resulting identity sidelines inclusion. Their article advocates for an “antenarrative” approach that promotes inclusion with “efforts to forward a more expansive vision of TPC, one that intentionally seeks marginalized perspectives, privileges these perspectives, and promotes them through action” (Jones et. al., 2016, p. 214). In their subsequent book, Technical Communication After the Social Justice Turn, they boldly call out the field as “complicit in injustice” (Walton et al., 2019, p. 8). Beginning with detailed discussions on positionality, privilege, and power, the authors demonstrate how technical communicators can identify and replace oppressive practices with intersectional, coalition-building action (Walton et
al., 2019, pp. 133–134). Integrating social justice with technical communication means “an understanding of the human impact of our work, scholarship, and pedagogy” (Walton et al., 2019, p. 83). Again, because technical communication instructors often already possess both the necessary technical proficiencies and familiarity with methods-driven research, the DH classroom becomes an opportunity to demonstrate to students a vast diversity of research and the ways it can and should be valued.

PROGRAM AND COURSE CONTEXT

The Department of English at West Virginia University has four graduate programs and faculty teaching at the graduate level expect an interdisciplinary mix of students in their courses. MA and PhD literature students along with MFA (fiction, non-fiction, and poetry genres) and MA in Professional Writing and Editing students share many graduate courses. The graduate-level DH course is popular among all four programs and has historically been taught by a faculty member affiliated with the professional writing program. The relationships among DH, English and literary studies, and rhetorical studies, broadly defined, are not without their contentious points and include claims not necessarily for primacy but more so for a pioneering presence. For example: “Yet much of the territory claimed by DHers was inhabited by rhetoric and composition long before DH arrived…Indeed we have been here for decades…Yet rarely is our field’s literature cited by DHers” (Carter et al., 2015, p. 35). Be that as it may, the concerns described here deal less with evolutionary disputes or delineating historical “waves” of DH and more with the opportunity technical communication instructors have to teach a diverse range of students, regardless of background, for methods-driven studies (A Digital Humanities Manifesto » The Digital Humanities Manifesto 2.0, 2009, para. 10). Many of the authors in Ridolfo and Hart-Davidson’s (2015) collection are academics teaching and researching in English departments or stand-alone rhetoric and technical communication programs of various names. Many also offer courses and degrees in technical and professional communication (or similar designation such as professional writing and editing). For students in the DH course, the interdisciplinary mix of the classroom is part of their daily lives but very few of them outside of the professional writing program have had any exposure to the methods-driven pedagogy waiting for them in the course.

Methods at the Epicenter

A week before the semester begins, I circulate Smagorinsky’s (2008) article, “The Method Section as Conceptual Epicenter in Constructing Social Science Research Reports.” Students are warned that the article, published in the journal Written Communication, has nothing overtly to do with DH. Instead, the piece serves to set priorities for the course and asks students to begin thinking in terms of a methods-driven approach to their work. Smagorinsky advises that “[t]he Method section, then, has evolved to the point where, in order for results to be credible, the methods of collection, reduction, and analysis need to be highly explicit. Further, the methods need to be clearly aligned with the framing theory and the rendering of the results” (2008, p. 392). That is, methods and methodology as delineated by Spinuzzi (2003), should not only be transparent to the reader but understood as rhetorical for their part in supporting a study’s integrity.

It helps, too, that Smagorinsky is a rather colorful writer. To illustrate why a poorly formed method section is a hazard for research, he asks his audience to imagine reading a vague food recipe with preparation directions that do not name specific ingredients, amounts and measurements, or cooking times and temperatures. After randomly gathering and combining the contents, he concludes, “Put them in cookware, heat, and serve” (Smagorinsky, 2008, p. 393). Students reported that the analogy resonated with them. The phrase “heat and serve” became shorthand in student conferences and peer feedback for underdeveloped methods sections.

Despite assigning Smagorinsky’s piece willfully outside of its expected context (it is a common source for scholars in writing, rhetoric, and technical communication that do any kind of qualitative research), the article pairs well with other readings scheduled early in the semester to introduce DH concerns over hermeneutics and methods. In the second edition of the collection, Debates in the Digital Humanities (2016), Clement notes that “most critiques of DH point to a decoupling of methods from the theoretical perspectives that would ordinarily help situate the kind of intellectual effort being engaged” (2016, p. 158). Students receive the message early on that DH researchers must be mindful of discrepancies and disconnects between method and methodology. Not dissimilar to Smagorinsky’s warning regarding “heat and serve” methods sections, Clement asks her readers to “consider how reductive it would seem to describe the mere presence of the techniques and methods as doing digital humanities. It would be like saying that doing ethnography simply entails establishing relationships, watching people, transcribing interviews, and keeping a diary” (2016, p. 158, italics in original). While this message should be continuously reinforced for students, from the perspective of the field of technical communication, a core premise of Clement’s chapter is not new. She writes that “an articulation of methodology helps researchers reinforce the systematic nature of their chosen approach. As I will argue, this is an act that ultimately facilitates a deeper engagement with theory” (p. 155). Indeed, researchers in technical communication may find little need to argue this point. Popular texts that provide instruction on conducting qualitative studies will insist that, for example, “[Q] ulitative sampling is often decidedly theory driven” (Miles et al., 2013, p. 31 italics in original). A bit more bluntly, Porter instructs, “You can’t do very much useful work—basically none—as a technical communicator without theory” (Porter, 2013, p. 130).

Explicitly ascribing value to theory when humanists employ research methods borrowed or derived from sciences and social sciences has been a key to success for technical communication and rhetoric and composition in general. New DH publications are in fact making explicit connections between theory and method. Chapters in the collection, Research Methods for Creating and Curating Data in the Digital Humanities (Hayler & Griffin, 2016) contend with the tension between employing computational methods and retaining a role for theory so valued by humanists. The editors assert early that “the making of any new digital artefact (which includes collections and archives) is always shot through with both theory and unrecognized assumptions that later need to be teased out and analyzed so that the items might give up at least some of its secrets” (Hayler & Griffin, 2016, p. 2).

The debates over the humanistic value of technical writing helped position the field to contend with its legacy of positivism by advancing adjustments to its pedagogy but also by publishing work to support those adjustments. Case studies, particularly studies of workplace and networked writing environments using both qualitative and quantitative methods are not uncommon for the field (Spinuzzi, 2003, 2008). Students and scholars of
technical writing also have access to field-specific publications on how to begin studying human subjects and the writing they produce (Hayhoe et al., 2020; Leavy, 2017), and journals such as *Technical Communication Quarterly* have published reviews of new guidebooks from outside the field for doing, for example, qualitative data analysis and data coding (Hashimov, 2015). These tactics, strategies, and tools employed by writing researchers have much to offer the DH classroom.

**Mature DH Project Discussion**

After introducing students to the premise that their course will have a methods-driven approach at its core, students locate, examine, and report on successful DH work. In the first week of class I give a sample presentation to model the core components required for a review of what constitutes a “mature” DH project. This assignment is by no means unique and has its origins in assignments found online from collections such as the [Zotero Digital Humanities Group](http://www.zotero.org/dh) archive. This version of the assignment asks students to focus on the primary questions the investigators were exploring with their research and to distill and report on the investigator’s methods for doing so. Students are provided with links to several well-known DH archives and collections (e.g., [Berkeley, South Carolina, Stanford, UCLA](http://www.berkeley.edu)) that model DH work but I do not vet or try to restrict what students decide to investigate. If inclusiveness is to be a “central goal” for technical and professional communication as well as DH, course instruction should clearly demonstrate how it “intentionally seeks marginalized perspectives, privileges these perspectives, and promotes them through action” (Jones et al., 2016, pp. 213–214). As Jones, Moore, and Walton remind us, “the only stories that are heard are the stories that are (re)told” (2016, p. 214). At this point in the course, students should also receive the link to the crowd sourced Google doc with hundreds of links to “Black Digital Humanities Projects and Resources.” The list contains projects that are powerful examples of mature DH work (e.g., see the [Digital Library on American Slavery](http://www.dlaa.org) and [Digital Harlem](http://www.digitalharlem.org)). The last iteration of the course had a broad, interdisciplinary range of graduate students including those studying literature, history, creative writing, and professional writing. It can be a challenge to locate sample projects that speak to such a wide range of interests, but students reported they felt the readily accessible DH archives had something for everyone.

For example, early in the semester a student located The Virtual St. Paul’s Cathedral Project hosted at North Carolina State University, specifically its first phase called the Virtual Paul’s Cross Project. This portion of the project endeavors to replicate an “experience of hearing John Donne’s sermon for Gunpowder Day, November 5th, 1622 in Paul’s Churchyard” (Wall, n.d.). Further, the project sought to explore how an audience member’s experience might have been affected by ambient noise, the setting’s acoustics, the total number of people in attendance, where a person was standing when they heard the sermon, and even the weather conditions speculated for the day of the sermon. While this is a historical project, at its core it asks us to consider how an immersive experience of this past event may deepen our understanding of a public sermon as a social, cultural, and communal event. As is often the case, robust DH projects such as this result in academic articles authored by a principle investigator (Wall, 2014a, 2014b) and even project reviews in scholarly journals (Smith, 2014). Students are responsible for locating these sources and sharing them with the class as part of their presentation, but also for bringing these sources into conversation with their own assessment of the project. The student presentation needs to make sense in terms of the methods-driven focus of the course and the details available on this project work well for the purposes of the course. In a section titled, “epistemology of digital modelling” Wall describes the project’s visual and acoustic models as “simulations of things created according to principles of interpretation, organisation, and display” (2014b, para. 11). The project’s interface allows users to hear a recording of a professional actor delivering Donne’s sermon but what they hear changes based on the selection of eight different standing locations and whether the crowd has 500; 1,200; 2,500; or 5,000 members. If the user selects an audience of 5,000, all those people both make noise and muffle sound.

After engaging with the interface, students understand that what the project offers is an array of experiences, and not the definitive experience that lays claim to having replicated exactly what it must have been like to be there. Returning to Miller’s earlier quoted remarks, the project is not “passing off a version as an absolute” (Miller, 1979, p. 616). There is a wealth of data assembled and constructed to make this remarkable project possible, but the outcome remains a probable construct. Because the broader concern of the project pertains to public sermons as a cultural phenomenon, students also understand that to the extent the Virtual St. Paul’s Cathedral Project is able to answer questions, it asks just as many.

DH opens up new avenues for well-established and well-researched fields to revisit old questions and even ask new ones. This represents a great deal of DH’s appeal. In his *Los Angeles Review of Books* DH interview, Galloway wondered, “what more can you really say about Shakespeare today? There isn’t a whole lot...You see this frequently in very old, extremely erudite, well-established disciplines where there is very little territory left in which to do research. I think DH has opened up a new territory. It has allowed people to find a new space” (2016, para. 3). Literary and cultural studies is accustomed to trying out new critical theories or methodologies as a way of rereading and reinvigorating well-researched subject matter. Old territory is rejuvenated by applying fresh critical lenses as with Shakespeare and Early Modern scholars reading their field through object oriented ontology, post humanism, and ecocriticism (Cohen & Yates, 2016). Established literary fields are less accustomed, however, to adopting new methods to approach their critical work. Doing so would require fundamental shifts in both pedagogy and practice. As Clement remarked, “That reading is universally understood as a reliable hermeneutical method in the humanities means that humanists are not typically required to argue for it as a method” (Clement, 2016, p. 163). In my own department’s graduate-level, literary research methods course, the primary concern is with how and where literary and cultural studies scholars perform research (archival work and searching databases) along with instruction on important conventions of a genre such as an abstract. For the papers that the students produce, there is no expectation of an identifiable, separate methods section. The literature review demonstrates the student’s due diligence in researching, citing, and integrating the appropriate sources for the subject matter. Reading remains the implied method.

The requirements for shifting our perspectives on methods is perhaps best captured by Ramsay’s *Reading Machines: Toward an Algorithmic Criticism*, another core reading requirement for the course. In summary, algorithmic criticism “is simply an attitude toward the relationship between mechanism and meaning that is expansive enough to imagine building as a form of thinking...Its partisans neither worry that criticism is being naively mechanized,
Figure 1: Median brightness values (0-255) found in Captain America comic covers displayed over time.

Figure 2: Close-up section of figure 1 data visualization focusing on time between 1981 and 1991.
not that algorithms are being pressed beyond their inability. The algorithmic critic imagines the artifacts of human culture as radically transformed, recorded, disassembled, and reassembled” (Ramsay, 2011, p. 85). Ramsay’s project takes issue with a wholesale adoption of the traditional understanding of scientific metaphor or method being applied to humanistic pursuits. He has a very honest moment early on in the book when he says, “We are not trying to solve Woolf. We are trying to ensure that discussion of The Waves continues” (2011, p. 15). This is a reminder that students are not charged with defending their “version as an absolute” and instead are being asked to contribute to a larger conversation remains central to the course.

**Working with Existing Data**

While DH work such as the Virtual St. Paul’s Cathedral Project serves to continue to foreground methods-driven research, these projects can also overwhelm students. The research often has private foundation or government funding and may be years in the making. The project teams have a wealth of expertise that cuts across disciplines. So, in an effort not to turn students off to the prospects of diving into DH and methods-driven work, students have the opportunity to work with the datasets, tools, and even the methods sections of past students who have taken the course.

Students of literature, history, and other humanistic disciplines in the course should know that the opportunity to repeat or replicate research methods outside of close or critical readings is not standard for many of our fields. The more traditional understanding has been that “few scholars in the humanities have the time – or the expertise – to backtrack through cited studies and evaluate them for correctness and replicability” (Hayles, 2012, p. 68). DH scholarship invites research replication or at least provides the opportunity for other researchers to challenge a study’s methods in ways humanities scholars have not done in the past. We expect, for example, that one scholar’s close reading of a text or critical interpretation of a literary period would be met with other scholars countering that work with their own analyses. With a student’s individual methods on display for critique, challenges to DH scholarship are different in that counter arguments don’t just focus on analysis but the formation of the study itself.

For example, Nan Z. Da offered critiques of several prominent DH research projects specifically by scholars doing computer science studies or “the statistical representation of patterns discovered in text mining fitted to currently existing knowledge about literature, literary history, and textual production” (2019a, p. 602). In one instance she scrutinizes the methods within a study designed to use detective fiction to examine whether genres changed over time. Da notes that just because a researcher has been able to formulate a study that produces desired results doesn’t mean those results are accurate or viable. After explaining how the use of pre- and post-1941 detective fiction and a corpus of “random fiction” are misaligned in the study’s models, she concludes the author is unable to support the claim of “genres not changing every generation” (2019a, p. 607). The study falls into a category she describes as presenting “a statistical no-result finding as a finding” (2019a, p. 607). Simply put, the results don’t uphold the claims. In this case she states pointedly that when the findings don’t support a claim, it may be that the study’s “method might have too little power — to capture this kind of change.” In other words, desirable results from flawed methods don’t “necessarily mean that you have found something” (Da, 2019a, p. 608). Indeed, it is important to convey to students that a study’s methods are an essential foundation of a researcher’s argument.

Similar to Da’s critique, Bode (2018) offers an assessment of the methods found in the scholarship of prominent DH researchers including Moretti’s past publications (2005, 2013) and takes issue with how he understands and utilizes the vast literary datasets he works with to produce his distant reading studies. To be fair, while novel at the time, DH scholars have advanced beyond Moretti’s methodological approaches to distant reading. Bode’s own project is a good example as she begins with her quest to study fiction published in nineteenth-century Australian newspapers and unpack and articulate the “the complex relationships between documentary record, digitization, data curation, and historical analysis” (2018, p. 3). To do so, she relies on Trove, a digital archive that brings together collections from Australian libraries, museums, galleries, media sources, and government agencies. Her issue with Moretti and other earlier digital humanists stems from their presentation of “literary data and digital collections as precritical, stable, and self-evident…In Moretti’s work on literary history, literary data are consistently presented as facts rather than interpretations” (Bode, 2018, p. 20). Texts, as they circulate through communities of readers, take on varying meaning and significance that can be studied and investigated but not presented, as Bode reminds, as “fact.” Bode’s correction to how we treat data is reminiscent of Miller’s earlier rejection of positivism and a call for technical and professional communication to understand its work as probable, contingent, and constructed. Bode is working with a public data source and she published her book with a Creative Commons license through University of Michigan Press. Her work therefore invites reengagement with her data and her studies. According to Piper (2021), one of the biggest challenges for the field is its “lack [of] quality training data to model important concepts for cultural study” (para. 5). Piper serves as the editor for the Journal of Cultural Analytics where scholars publish not just their research articles but also open access data sets inviting replicated research.

My argument here is that access to data and the replicated research it allows also reveals pedagogical opportunities. In the process of replicating smaller-scale projects carried out by prior students, new students may find ways to improve the methods, data, and analysis of older work. Improving or advancing a former study isn’t a requirement but questioning and engaging with the former work is. Developing assignments that use existing research methods and datasets is an effective means to indoctrinate students into methods-driven studies without first overwhelming them with the daunting task of designing a start-to-finish project. A data visualization assignment introduced early in the semester of a digital humanities course can better prepare students for longer research projects in that course and beyond. The assignment recycles datasets prepared by a former student (with permission, of course) and revisits their methods used to collect and render their data. Again, the assignment is used here as a course module inserted at the beginning of a course designed to cover a variety of DH topics.

The project uses the open-source tool ImagePlot, software made popular by Manovich’s (2012) article, “How to compare one million images?” The student project examines the hue, brightness, and color saturation values of Marvel comic book covers from over half a century. The student’s methods section details their process for collecting and assembling a robust dataset to complete their visualizations. The student project demonstrates how to leverage replicated research so it has effective pedagogical value including showing new students how formulating a research question,
curating a large dataset, and discussing the research results are crucial for their success in the course. But, equally important, they will also see the necessary role a well-defined methods section plays in the study. With access to the dataset, methods, and results for the project students are also actively learning DH in process of replication.

Data Visualization and Comic Books

The proliferation of more affordable digital devices and their networked capabilities has helped spawn more new media content as well as enable access to it. Massive amounts of new and newly available content “has created a fundamentally new cultural situation and a challenge to our normal ways of tracking and studying culture” (Manovich, 2012, p. 250). The more traditional humanistic approaches of close reading or analysis of a small sampling of content is insufficient for identifying the many stylistic nuances that can appear over time across large amounts of data. This project takes its cues from Manovich’s influential work (2012) where he demonstrates what he terms “cultural analytics” by studying 1,074,790 contemporary Japanese manga pages (p. 262). The two-part methods section in Manovich’s piece introduces students to the ImagePlot software macro that 1) enables “digital image processing” of large datasets and that can calculate visual characteristics of that data including values such as hue, saturation, brightness, and number of distinct shapes 2) creates visualizations of the dataset characteristics to represent, for example, changes in hue over time (p. 262-263).

Manovich’s Software Studies Initiative website hosts print and video tutorials for using ImagePlot as well as sample datasets for new users to get started with the application. Because learning and using any new software tool can be a challenge for both student and instructor, ImagePlot and its supporting documentation make for a good choice in terms of its ease of integration into the course. The cross-platform tool is relatively simple to use and students reported only minor setbacks installing and running it (ImagePlot is technically a macro that requires the installation of a separate, free application called ImageJ in order to run and the relationship between the two applications can cause some confusion). While these tutorials are useful for students, using ImagePlot to replicate a former student’s research project is a more effective means for new students to experience a methods-driven approach to a research question requiring the curation of a larger dataset.

In this project, the student studied the now-iconic comic book hero, Captain America. Created in 1941, the second world war meant that the character emerged from a uniquely charged socio-political time. The character disappeared after the war and then reappeared as the representative of American ideals who is then sharply contrasted by his foes that stand in for fascism, communism, and, in his present instantiation, international terrorism or alien invaders. What might we infer, if anything, if the Captain America franchise were to take a grittier turn?

Replicating the research that explores these questions begins with the methods section of the former student’s paper. It educates current students on the process of identifying, creating, formatting, and naming and saving image data and metadata. It also discusses some of the decisions the former student needed to make in terms of including or excluding data. The student needed to contend with Captain America’s publication hiatus as well as his appearance amongst other comic heroes. When he was reintroduced in 1964, for example, Captain America appeared as a member of the now wildly popular Avengers and in another Marvel series titled Tales of Suspense where he shared lead billing with Iron Man.

After discussing the challenges of their data selection, the student’s methods section describes how to access the Marvel Comics Unlimited website in order to obtain comic book cover images of consistent size and image quality. Their dataset ultimately contained 397 image files beginning in 1941 through 1996. Using the .png file format, each cover was saved with a “c” to designate it as a comic and then a sequential number. So, Captain America Comics #1 was saved as “c1” and all files were archived in a single image directory. After capturing and naming each image, the student managed the rest of their data in an Excel worksheet that included columns for File Name, Series Title, Issue Number, Publisher, Month Published, and Year Published. After loading their files into ImagePlot, they would export the results and update the Excel file to include median and standard deviation values for hue, brightness, and color saturation. Their data visualizations of these values over time were saved as high resolution .tif files. Figure 1 below shows this author’s attempt to replicate the student’s work visualizing the median brightness found in all 397 Captain America comic covers over time. Figure 2 is a close-up of a small section of the data visualization to show the overlapping brightness found in the comic covers as well as a couple of outliers from the mid 1980s. Because we have copies of the former student’s Excel file, I also showed students where I made an adjustment to the project’s methods. Specifically, it was easier to import the data into ImagePlot if I created a single date column that merged the month and day. To do so, I showed the class how to convert months to decimals so they fed correctly in this DH tool. E.g., January 1941 became 1941.1668, February became 1941.2502, March became 1941.3336, and so on. The demonstration provided an important lesson on how the affordances of a particular tool may be incompatible with research objective.

What the student found was a surprising amount of consistency of hue, brightness, and saturation across the Captain America comic simply report the more obvious presence of red, white, and blue color values. But what about measuring and visualizing the hue, saturation, and brightness as well as the standard deviation values of hundreds of covers over time? What would such an analysis reveal? ImagePlot also allows users to detect and count the distinct number of shapes found in every image. Fewer shapes wouldn’t necessarily signal a darker turn in the comic (as with the famous Dark Knight cover) but identifying shifts to and from a “busy” or shape filled cover to simplified design may reveal whether or not Captain America follows comic industry trends. The Captain America figure is frequently depicted as the morally upright representative of American ideals who is then sharply contrasted by his foes that stand in for fascism, communism, and, in his present instantiation, international terrorism or alien invaders. What might we infer, if anything, if the Captain America franchise were to take a grittier turn?
covers. In addition to the expected reds, whites, and blues, yellow dominates as a hue value and is pervasive across the midsection of the hue data visualizations they created. There are two moments later in the comic’s publication where darker blues and blacks appear but there is also a small spike in white and lighter coloring. This perspective on a larger amount of data is an instance of the expansion of distant reading where a large set of images and their corresponding metadata are visualized en masse, generating new vantages on work. It is then up to the student in terms of how to analyze and discuss this new perspective and these results. With the new visualizations, the “critic seeks not facts, but patterns. And from pattern the critic may move to grander rhetorical formations that constitute critical reading” (Ramsay, 2011, p. 17).

A common concern over the deployment of DH tools like ImagePlot is the worry that “[s]ome tools encourage intellectual laziness by obscuring methodology” (Tenen, 2016, p. 84). A benefit of using past projects is new students get to see how former students developed their methods, results, and analysis. As noted, there are also opportunities for instructors and students to make modifications. The added benefits of a tool like ImagePlot are the sample datasets, directions, and discussion provided by Manovich and his team. Again, for the purposes of the course, students come to understand that what the “results mean and why they matter is open to interpretation” (Tenen, 2016, p. 85). The data visualizations
and the patterns that emerged trigger any number of new questions to explore. Do the color changes coincide with a change in artist direction or an illustrator? Perhaps they coincide with a change in intellectual property ownership and the publisher? World War II provided a very particular socio-political context for the comic in the 1940s, but what about the 1960s through the 90s? What if we were to expand the dataset to include the 21st century and latest iterations of the Avengers? Research from scholars such as Risam (2018) and Walton, Moore, and Jones (2016, 2019) should prompt us to expand our questioning through the cultural implications of the comic book covers selected. What might the study reveal about depictions of nation-state iconography? How do the covers promote national or even jingoistic ideals? New tools and methods that spawn new questions means DH has been a boon for literary scholars interested in, as Ramsay says, making sure discussions continue. But for those in the fields of technical and professional
communication, document design, and experience architecture, we need to continue to teach our students how to approach their work with fresh perspectives, too.

Tools and Data
Any instructor approaching an introductory course such as this one will need to decide how much time is dedicated to a specific digital tool or tools. This course is set up so students are exposed to a great number of tools by way of the presentations on mature DH projects. I make myself available to students when they are in trouble-shooting software that they have identified for use in their research projects but I also set the expectation that they are responsible for researching and learning the tools necessary for their work. (For a discussion on focusing on a single tool, see Litterio’s (2021) “Digital Humanities in Professional and Technical Communication: Results of a Pedagogical Pilot Study” that centers on the open source web-publishing platform Omeka). In the world of software, ImagePlot is old technology. Even though the software is quite functional for the purposes of the course, an interesting twist on the assignment is to use the student’s research question and data as a starting point but introduce new software tools. For example, PixPlot from Yale’s DH lab (2017) renders clusters of image data that allow web-based interactivity enabling a user to pan and zoom through the data visualizations (Fig. 3). It, too, allows for the introduction of a variety of metadata to help shape the outputs and even create interactive hotspots within the data visualization (Fig. 4). There are others, too, such as Tableau, Timeline JS, and RAWGraphs that all bring differing abilities for rendering visualizations. What is important for students to understand when using these DH tools, or any software tool, is that the interpretation and analysis of the results is still a separate process and will depend on the different theories and methodologies employed to underpin and contextualize the work.

For those who don’t have existing projects to teach from, many if not most DH tools have sample datasets and methods-driven instructions for using the tools and analyzing the data. ImagePlot is no exception, and Manovich’s team assembled sample data containing 776 van Gogh paintings created by the artist between 1881 and 1890. They added metadata in a spreadsheet for each of the paintings that included the year and month the painting was created as well as a classification for it (e.g., self-portrait, landscape, still-life). They also included the title of the painting and the where the artist was living at the time (Paris or Arles in the south of France). The researchers wanted to challenge some common generalizations about the artist’s work including language and analysis of the results is still a separate process and will depend on the different theories and methodologies employed to underpin and contextualize the work.

Again, the activities described above using ImagePlot and existing data from a prior student project are treated as a module that I typically include early in the semester of an introductory DH course. Introducing students to ImagePlot, sample student data as well as the sample data that comes packaged with the tools require two weeks’ worth of class time. More time is added if other tools such as PixPlot or Tableau are part of the instruction. Teaching these tools together makes sense in a course where several modules, or perhaps the entire course, focus on data and humanities visualizations. Regardless of the modules assembled for the course, time is allotted each class period for student presentations on mature DH projects in an effort to keep the focus on methods. In addition to the Zotero archive, Carnegie Mellon University’s Digital Humanities Literacy Guidebook has a thorough collection of DH topics. The topics range from 3D Modeling to Web Archives and are useful to instructors wishing to assemble DH modules for their courses.

Formulating Questions
Because this course requires students to complete a methods-driven digital research project by the end of the semester, beginning with a focus on methods may appear to be putting the proverbial cart before the horse. That is, why focus on methods in advance of students having a defined research question? Regular communication and transparency with students about the pedagogical strategy for the course are essential. From the outset, students are assured that their research questions will be developed and refined over the first half of the semester and that it benefits them to develop their questions amidst a course staged with methods at the epicenter of the pedagogy. The strategy gets students ready to argue with and for their methods – something most of them have reported not having to contend with. Nevertheless, in an introductory course such as this, there is often anxiety surrounding “the development of the researchable question” (Teston & McNely, 2013, p. 219). As Hoover advises, “the fact that a problem is computationally tractable
does not mean that a definitive or certain solution is necessarily possible; nor does the fact that a problem is computationally intractable mean that a legitimate and effective argument cannot be made about it” (Hoover, 2016, p. 233). He gives the example of questioning whether or not William Faulkner’s sentences are longer than those of Henry James. A tractable problem to solve but one which the answer does little to advance the fields of study around either author. Regardless, as students begin to draft research questions for their final projects, I do steer them toward specific questions and not broad topics about, for example, Southern literature. Where possible, the focus is on computationally tractable questions that contribute to a larger conversation. Because I do spend more time in class with data visualization tools like ImagePlot, PixPlot, and Tableau to replicate prior student work, students often do formulate questions that naturally involve those tools. For example, in different iterations of the course there were students interested in film who devised questions using ImagePlot. One was looking for patterns across movie posters representing the films that won academy awards in different categories. The other wanted to examine the common understanding that the eight films in the Harry Potter series get visually darker as they progress. The student wanted to prove the theory but also be able to answer how dark, exactly, and how quickly its hues and brightness dim over the span of the films.

CONCLUSIONS
This course begins with a declaration of its methods-driven pedagogy and Smagorinsky’s influential article on research methods serving as an epicenter for our learning (2008). Students see a sample presentation on a mature or established DH project from the instructor that highlights how the project’s research questions and methods (including tool selection) are reflected in the work. Students are then provided guidelines for their own presentations as well links to DH archives. Each week, students will see a different presentation from one of their peers. If the enrollment in the course is high, students are grouped into presentation teams. The instructor provides links to prior student projects including their datasets and papers containing their research questions, methods, results, and analyzes. As noted above, if an instructor is teaching a DH course for the first time there are sample datasets as well as research methods and discussions that accompany many tools including Manovich’s ImagePlot. According to Norton, “Part of the power of using DH methods as teaching tools derives from the active learning baked into the process” (Norton, 2019, p. 302). Whether students are replicating the research of former students or using sample datasets from other DH tools, this hands-on element is essential to the course. It is also recommended that even if a curated dataset is available from a past project that students are tasked with recreating at least a portion of the dataset. Again, the construction of the dataset itself should be understood as a rhetorical act. Curation means facing decisions about what data to include, how to capture and format it, as well as any necessary metadata needed to inform the work. This type of hands-on, active learning can be messy and at times, frustrating. Students experience how “doing DH is not as simple as choosing a digital tool and then combining that tool and tactic with a given methodological approach” (Boyle, 2015, p. 112, italics in original). Students may have to experiment with different tools to genuinely understand the affordances of each and how well they do or do not serve their research questions and methodological frames. In several iterations of an introductory DH course that uses versions of this framework I have found that the course is able to make room for the research interests of the diverse humanities majors who enroll in the course and provide them with enough structure and guidance to successfully complete their own projects.

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Ethical Deception: Student Perceptions of Diversity in College Recruitment Materials

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ABSTRACT
The use of images of students from traditionally underrepresented racial and ethnic backgrounds in college recruitment materials presents a seemingly difficult dilemma. Should colleges and universities use diversity in recruitment materials to try and attract students from underrepresented racial and ethnic backgrounds even if those images do not accurately represent the amount of diversity at the university? To discover student perceptions relating to this question, I used a mixed-methods approach in which I surveyed 117 students and then interviewed 10 survey participants. Survey and interview questions were based on utilitarian versus deontological ethics with an emphasis on whether exaggerating diversity in recruitment materials is ethical. The results of this exploratory study showed that most students believe using a disproportionate amount of diversity in recruitment materials is unethical. Student participants who identified as a person from an underrepresented racial/ethnic group indicated that it is unethical to exaggerate diversity in recruitment materials at a higher percentage than their white counterparts. This is likely because people from underrepresented backgrounds face a much higher risk of harm from misleading recruitment materials than their white peers.

Keywords
Higher education, Recruitment, Race, Document design

INTRODUCTION
When interviewing a technical communication (TC) student for a recent research project, she relayed to me her experience choosing the college where she wanted to study. She said, “Many [universities] put diversity and pictures of people of color on their recruitment materials. I don’t want to be the Asian face. Those posters are a lie. It’s false advertising. It really bothers me. I was there. I was that person.” In today’s higher education culture, a diverse student body can be a form of prestige. The most diverse campuses are ranked by US News and World Report in a similar way to how top academic programs are ranked. When administrators seek to recruit a diverse class of students because of their institution’s “core values” or mission statement, they may be creating opportunities for students who might have otherwise struggled to find a place at their institution. However, diversity efforts enacted by colleges and universities for prestige and recognition—or those that are enacted simply to fulfill a mandate—can be dehumanizing to vulnerable populations such as students who identify as Black, Indigenous, or a person of color (BIPOC).

College recruitment materials are a form of TC in which information about a college or university is presented to a prospective student in an effort to convince that student to attend the institution. In previous studies, I have explored how TC students, especially students who identify as a person of color, discover technical communication academic programs (Dayley & Walton, 2018) and how they perceive their program’s support for students from diverse backgrounds (Dayley, 2020). Other researchers have explored the disparities in the representation of people of color specifically in college recruitment brochures (Hartley & Morphew, 2008; Hite & Yearwood, 2001; Pippert, Essenburg, & Matchett, 2013), as well as ethical document design (Dragga, 1996; Manning & Amare, 2006). In this exploratory study, I examine how program administrators seek to recruit students from diverse backgrounds by examining the ethics of the type of communication used to create
To explore the ethics of the techniques used in the design of college recruitment brochures, I employ traditional ethical frameworks, specifically deontological and utilitarian ethics. I use these frameworks to explore several ideas related to the design of recruitment brochures such as whether document designers are using images of people of color as merely a means to increase diversity numbers or whether attracting students of color under false pretenses is justified based on the benefit these students may receive from getting a college degree.

Unlike previous studies on diversity in college recruitment materials which analyze the images themselves, this article asks students directly about their opinions relating to the use of images of people from underrepresented groups in recruitment materials. Similar to Dragga’s 1996 study on ethical document design, I used survey questions to ask research participants about their perception of the ethics used in creating college recruitment materials. I then followed up with qualitative interviews with a subset of respondents to find out what their opinion is of the techniques used by colleges and universities in recruitment materials and their reasons behind those opinions.

LITERATURE REVIEW

In this section I discuss the literature that has previously explored the use of racial and ethnic diversity in college recruitment materials. I then use utilitarian and deontological framing to describe the ethical dilemma of using diversity in college recruitment materials.

Diversity in College Recruitment Materials

Higher education existed in the Americas well before the founding of the United States as an independent nation. As societal norms and attitudes have shifted over the nearly 400-year-old history of higher education in the Americas, institutions of higher education have transformed their admission policies from overt exclusion of people of color to a concerted effort to appear as inclusive as possible (Karabel, 2005; Lucas, 2016; Thelin, 2011). These efforts to diversify higher education often include the creation of recruitment materials that feature images of racially and ethnically diverse groups of students (Osei-Kofi, Torres, & Lui, 2013; Pippert, Essenburg, & Matchett, 2013).

Several researchers have explored the way colleges and universities use diversity in their recruitment materials. Pippert, Essenburg, and Matchett (2013) examined 10,000 photographs found in college admission brochures for accuracy in representing the student body of the college who produced the brochures. Their findings showed that the majority of institutions in their study used images of diversity in proportions that were significantly different from the actual student body. They stated that this type of inaccuracy is done purposefully by institutions of higher education to present a favorable image of the college:

We are, however, suggesting that the consistency at which institutions of higher education present misleading depictions of racial diversity leads us to the understanding that it is intentional and near universal. It is clear that racial diversity is being used as a commodity in the marketing of higher education and presenting an image of diversity is more important than accurately portraying the student body. (Pippert, Essenburg, & Matchett, 2013, p. 275)

The study also found that, more than any other group, the number of black students at colleges and universities was greatly exaggerated in recruitment materials. This suggests that colleges are not simply trying to appear welcoming to all groups but are trying to create an image of diversity even if that diversity is hyperbolic:

If appearing welcoming to all students or simply aspiring to be more diverse without constraining the definition of diversity was the true goal, the race-specific patterns in the data would not have surfaced. A simple exaggeration of racial diversity in admissions brochures would have resulted in greater representations of Hispanic and Native American students. In this study, Hispanics were consistently underrepresented across the institutions and images of Native American students were non-existent in most brochures. Furthermore, if appearing welcoming was the real goal, the shifting levels of over and under-representation of specific groups would not have been so dramatic when comparing campuses with different levels of diversity. (Pippert, Essenburg, & Matchett, 2013, p. 276)

In their analysis of college admission viewbooks, Osei-Kofi, Torres, and Lui (2013) found that, regardless of the level of diversity at the institution, the level of diversity in college viewbooks remained the same. They report that representations of diversity in college recruitment materials appear not to convey a message of welcome and acceptance to people of color but are instead performative and meant for a white audience:

In the quest to appear diverse, bodies of color are positioned against a White norm and are used in viewbooks to invoke racial harmony on college campuses. In so doing, viewbook discourse attempts to play to liberal desires, wishes, and fantasies of racial harmony with a message that by attending an institution of higher education, you too can be a part of a racially harmonious community. (Osei-Kofi, Torres, & Lui, 2013, p. 402)

However, some researchers have noted that people of color may pay more attention to advertising that portrays images that are more racially diverse (Avery, 2003; Walker, Feild, Bernerth, & Becton, 2012). This indicates that although colleges and universities may be creating recruitment materials with diverse images more for perception than to attract people of color to their institutions, they may be attracting people of color anyway. Åleman and Salkk  (2001) noted: “Much like advertisers might pitch a product by highlighting its most marketable trait (e.g., ‘lite,’ ‘non-fat’), these
colleges used ‘diversity’ as a means to attract the consumer to what they perceive is a desirable educational condition: the presence of racial and ethnic minority students” (p. 119).

The use of images of students from diverse backgrounds to try to bring in diverse classes of students, and appear supportive of diversity, creates a difficult dilemma for colleges and universities—a sort of chicken-or-egg scenario. If a college isn’t currently diverse, how can they attract diverse students to their campus without showing they are supportive of diversity by featuring people from diverse backgrounds in their recruitment materials? And if they do use images of people from diverse backgrounds in their recruitment materials, are they justified in exaggerating the diversity in these recruitment materials, knowing these images don’t accurately reflect the actual diversity on campus, to try and attract people from diverse backgrounds?

**The Ethical Dilemma**

To examine the ethical dilemma of whether colleges should use exaggerated numbers of students from diverse backgrounds in their recruitment materials, we will be looking at the problem through the lens of two major ethical frameworks, utilitarianism and deontology.

If we look at the problem of using diversity in college recruitment materials through the lens of utilitarianism, we ask ourselves “what action is likely to produce more good than any other action?” Though the issue of using exaggerated diversity in college recruitment materials is very complex, with many factors to consider, the simplest train of thought is that college generally leads to better life outcomes for students (Mayhew, Rockenbach, Bowman, Seifert, & Wolniak, 2016). Therefore, if you are concerned with increasing the quality of life for marginalized people, you will want to get as many of them enrolled in college as possible even if it means using deceptive recruitment materials to do so. Some will end up dropping out, but more will end up graduating, and most of those who graduate will be happier overall because of it.

In contrast to the “ends justify the means” philosophy of utilitarianism, deontologists believe that actions need to be justified and not merely “explain the factors that led us to choose them” (Markel, 2001, p. 46). In his much-cited article, “The ethic of expediency,” Katz conducts a rhetorical analysis on a memo from Nazi Germany (1992). He finds that the “memo is expediency,” Katz goes on to explain this rhetorical problem, the ethic of expediency, as a problem of the author using a rhetorical style that shows no regard for the contents or consequences of the writing. Katz argues that “we need to consider technical writing based on deliberative rhetoric from the standpoint of both rhetoric and ethics” (p. 260). In the article, Katz points out that “…the technology and the technical communications about the technology were effective and expedient but also appallingly unethical” (Dombrowski, 2000, p. 53).

For Katz, and other deontologists, the design of communication has ethical implications. Using images of people from diverse racial and ethnic backgrounds on recruitment materials when they do not accurately represent the diversity at that institution may attract people from diverse backgrounds to attend an institution, but this is deceptive. The act of using deception to increase diversity at an institution, even if the intent is to better the lives of the people who attend the institution, to a deontologist, would be considered immoral and therefore unethical.

As discussed earlier, previous literature has shown that the attempt by colleges and universities to use diverse images in their recruitment materials is largely performative and meant to present an image of diversity and inclusion to the public rather than to be welcoming to BIPOC. However, these materials may still be attracting BIPOC to colleges and universities. Even if we assume that colleges and universities are using deceptive numbers of students from racially and ethnically backgrounds in their recruitment materials with the best of intentions, this practice is still deceptive and may even be harmful. When making decisions about recruiting students from underrepresented backgrounds, it is important to include the voices of students from those backgrounds (Dayley, 2021). This article seeks to contribute to the existing body of knowledge regarding the use of BIPOC in college recruitment materials by seeking input directly from students about the consequences of using hyperbolic representations of diversity in the design of recruitment materials.

**METHODS**

Since the effect of using inaccurate depictions of diversity in recruitment materials has not been studied in-depth, this project is designed as an exploratory study. The intent of this study is to better understand and clarify potential problems related to the use of diversity in college recruitment materials. The results described later in the manuscript are meant to inform future research projects.

The following section describes the research methods used for both the survey and interview portions of the study. Each section is broken down into a separate subsection for the survey and interview portions of the study.

**Recruitment**

This IRB approved study (Texas State University #7302) was limited to students at Texas State University not currently enrolled in the technical communication program. To recruit participants, I contacted each department at the university and asked them to invite their students to complete the survey. This resulted in 117 responses. Upon completion of the survey, participants were asked if they would be willing to participate in an interview. Those who indicated they would be willing to be interviewed were directed to a separate survey that collected their first name and email address. Sixteen participants indicated they would be willing to participate in an interview. I contacted all 16 through email. Of those 16, 10 responded to my email and were interviewed.

**Participants**

This section describes the demographics of the participants in the study. All interview participants were volunteers selected from survey participants.

**Survey Participants**

A total of 117 students answered at least 1 survey question. Not all participants answered every question. There were 65 participants who indicated they were undergraduate students and 48 who indicated they were graduate students. Of the respondents who identified their gender identity, 66 identified as women, 23 identified as men, and 2 identified as non-binary. When asked about their racial/ethnic identity, 6 students identified as Native American, 3 students identified as Asian, 3 students identified as Black, 39 students identified as Hispanic or Latinx, 58 students...
identified as white, and 5 students identified as another identity not listed in the survey.

**Interview Participants**

There were 10 students who agreed to be interviewed for this article. All interview participants were current college students at Texas State University. The interviews took place over the phone or on Zoom. Each interview participant is represented by a pseudonym. The terms used to identify the students’ racial and ethnic backgrounds were given by participants. Interview participants included:

- Adam – An African American and white man
- Angie - A white woman
- Jason – A Chinese and white man
- John - A Latino man
- Laurie – A white woman
- Leigh - A white woman
- Marie - A white woman
- Markus - A Latino man
- Ransom - A white man
- Suzanne - A Latina woman

**Data Collection**

**Survey**

In order to discover students’ perceptions regarding the use of images depicting people from diverse backgrounds in recruitment materials, I created an online survey that could be easily distributed. The survey was created in Qualtrics, an online survey generator and data collector. The survey contained 25 questions and could be completed in approximately 10 minutes.

I created a list of all university departments and contact information for department chairs. In the rare case that contact information for a department chair could not be found, I contacted the administrative assistant or the general email address for the department. I emailed each department and asked them to invite their students to take the survey. Department contacts emailed students the provided invite letter along with a link to the survey. Survey data collection lasted for nine weeks. After nine weeks, the survey was closed.

**Interviews**

Participants were asked a set of questions focusing on several factors including the type of recruitment materials they viewed when making their college decision, how they made their college decision, and the importance of diversity in their college decision. After asking about their own college decision, I used a list of interview questions based on the survey results to ask their opinion regarding the use in college recruitment materials of images of people from racially and ethnically diverse backgrounds. Interviews were conducted over the phone and on Zoom. The audio was recorded with permission. After recording the interviews, I created a transcription of each interview in a Word document.

**Data Analysis**

**Survey**

After 9 weeks, the survey was closed, having collected responses from a total of 117 students, with 91 completing the survey for a 78% completion rate. Reports to separate the results were created based on independent variables such as race/ethnicity, gender identity, age, and degree level. Data from each set of independent

![Participant Racial/Ethnic Identities](Image)

Figure 1. Pie chart displaying the percentage of respondents who identified as being a part of a specific racial and/or ethnic group.
variables was placed in a frequency distribution table as part of a univariate analysis. Distribution data was compared and analyzed for differences among variables.

**Interviews**

I sent each interview participant a document containing their transcribed interview over email. I asked each participant to read over the transcription and notify me of any changes that needed to be made. This was done to ensure the integrity of the data and to make sure that interview participants were being represented correctly.

As suggested by Crabtree and Miller, I used a spectrum of “prefigured” and “emergent” codes to analyze the data for emerging themes (1992, p. 151). The prefigured codes were based on the interview questions and emergent codes developed as the data in each prefigured code was analyzed. Each interview question, or a small group of interview questions, represented a prefigured code.

I carefully read each transcription in a Word document and highlighted the participants’ answers to each interview question. After doing this, I created a comment in the document which summarized each highlighted quotation in a few words. After creating short summaries for each highlighted answer, I then grouped the answers to each interview question according to emerging themes based on my short summaries.

When quoting interview participants in the article, I used exact quotations leaving in slang, alternative grammar usage, etc. However, if an interview participant used “filler words” excessively such as “um,” “like,” or “you know,” I removed those words. This was meant to allow the words of participants to be understood clearly (Lindlof & Taylor, 2011).

**RESULTS**

**Survey**

In this section I report on the answers given by survey participants. I have divided the data into three categories:

- responses by students who identified as only white;
- responses by students who identified as a person of color; and
- the total combined responses.

I compared the white student group with the BIPOC group to see if there were any major differences in the opinions regarding how diversity is used in recruitment materials of the BIPOC group versus the group of white students. It should be noted that the BIPOC group is not monolithic and neither the group as a whole nor individuals in that group stand in as representatives of the groups with which they identify. I combined all non-white students into the BIPOC group to give more data for comparison as any one non-white racial and ethnic group was very small, which made them difficult to compare to the white student group.

Survey respondents included 65 undergraduate and 48 graduate students. Of the respondents who reported their gender identity, 66
identified as female, 23 identified as male, and 2 identified as non-binary. The racial/ethnic identities of respondents included: white (58), Hispanic (30), Latinx (9), Asian (3), Black (3), First Nations/Native American (1), and 5 respondents indicated another racial/ethnic identity not included in the question.

Survey participants were asked, “Should colleges and universities actively try to recruit people from underrepresented racial/ethnic backgrounds?” This question was asked before any other questions regarding race/ethnicity in the survey. The purpose of this question was to see which kind of bias may be present in the opinions of survey respondents either for or against the intentional recruitment of students from underrepresented backgrounds. The majority of respondents indicated that colleges should actively recruit students from diverse backgrounds (68%) with only 8% of respondents indicating that colleges should not actively recruit people from diverse backgrounds and 24% indicating that they were not sure.

Students were shown a series of images as samples of college recruitment materials. They were then asked four questions regarding their opinions of the use of images of students from diverse backgrounds in recruitment materials. The first question was meant to ask students about the dilemma of whether it is morally acceptable to use these images within a utilitarian framework. The question read:

Academic studies show that, in most cases, attending college will result in more money earned over time and better life satisfaction for graduates.

A common goal of colleges and universities is to increase the diversity of their student body.

Although some colleges and universities have a student population with many students from diverse racial and ethnic backgrounds, most are predominately white.

Is it good for colleges and universities to try and recruit students from underrepresented racial/ethnic backgrounds by showing diversity on their recruitment materials, even if the school isn’t actually diverse, since attending college will likely result in a better life for most graduates?

The second question was meant to look at the same situation within a deontological framework. The question was:

Many colleges and universities use images of diverse groups of students in their recruitment materials. These materials often misrepresent the amount of diversity at the institution. Should colleges and universities represent the amount of diversity at their institutions honestly in their recruitment materials even if it means the possibility of attracting fewer people from underrepresented racial/ethnic backgrounds?

The majority of respondents answered that colleges and universities should accurately represent the diversity on their campuses in their recruitment materials (53%). When broken down by racial/ethnic groups, 44% of white respondents said that colleges should accurately represent their diversity in recruitment materials compared to 69% of people of color.

For the third question, students were given a statement and asked to select the reasons why the statement is true or to indicate that they did not agree with the statement. The statement said: “Colleges and universities should feature individuals from diverse racial and ethnic backgrounds in their recruitment materials, even if it misrepresents the amount of diversity at their institution, because (click all that apply).” The choices they were given were:

- It shows the college supports diversity
- It could attract more students from diverse racial and ethnic backgrounds
- Another reason (Respondents were then given a text box to state that reason)
- Colleges and universities should not exaggerate racial and ethnic diversity
- Don’t know

Responses included 38% (35) indicating that featuring diverse individuals shows the college supports diversity (50% (24) white and 28% (11) BIPOC), 51% (47) selected “colleges and universities should not exaggerate racial and ethnic diversity” (46% (22) white
and 59% (23) BIPOC), and 36% (33) said that featuring diversity could attract more students from diverse backgrounds (44% (23) white, 31% (12) BIPOC).

The fourth question stated, “It is wrong for colleges and universities to misrepresent the amount of racial and ethnic diversity at their institution in their recruitment materials because (click all that apply).” Choices for this question included:

- the college/university is intentionally misleading students and the public.
- it is morally wrong for colleges and universities to misrepresent the amount of diversity at their institutions.
- misrepresenting the amount of racial/ethnic diversity in recruitment materials could harm people from underrepresented racial/ethnic backgrounds.
- Another reason (Respondents were then given a text box to state that reason)
- colleges and universities should be able to show a
disproportionate amount of diversity in recruitment materials if it means more people will benefit from higher education.

• Don’t know

Fifty-six percent (48) of respondents indicated that colleges and universities should not mis-represent the amount of diversity at their institutions in recruitment materials because doing so is intentionally misleading: 49% (22) white, 67% (24) BIPOC, 60% (52) indicated misrepresentation could be harmful (69% (31) white, 56% (20) BIPOC), and 30% (26) of respondents indicated that misrepresenting diversity is morally wrong (22% (10) white, 44% (16) BIPOC. Twenty-one percent (18) of respondents indicated that colleges and universities should be allowed to exaggerate their diversity in recruitment materials with 33% (15) of white respondents selecting this response compared with only 6% (2) of the BIPOC respondents.

Interviews

As expected, interview responses were much more nuanced than the survey responses. Interview participants were asked if they believed it was OK for colleges and universities to exaggerate the amount of racial and ethnic diversity at their institutions if the purpose of doing so is to show support for diversity and to help the institution to attract more people from underrepresented backgrounds. All respondents, to some extent, indicated that it’s not good for colleges and universities to misrepresent the amount of diversity at their institutions, but their reasons for this were varied.

Responses to this question fell into three main categories:

• diversity should not be the focus;
• communication should be accurate; and
• misrepresenting diversity is unethical.

Diversity Should Not be the Focus

Both Angie and Leigh stated that they believe that colleges and universities should not be focusing on diversity when recruiting students. For Angie and Leigh, the focus should be on the college and its program offerings rather than if the college has diverse groups of students. Angie said:

[The university should] want [prospective students] to feel like they open this pamphlet and that they aren’t trying to get people there because they are of a certain race. You want people to go to your school because they want to be there. They like the campus. They like the education. They’re going to be happy at that school because they like that school not because they like the fact that they saw other people like them. Diversity is important in the sense that we don’t want anyone to feel left out but we also don’t want to make it this “come here because we are diverse,” we are this and we are that. They should want to come here because...this is where they’re getting their education. [The university should] want [students] to come here because [we] have a good education. At least

Figure 8. Bar graph displaying the percentage of BIPOC and white respondents who indicated agreement with several statements regarding why it is wrong for colleges and universities to misrepresent the amount of racial and ethnic diversity at their institution in their recruitment materials. The X-axis shows the different possible answers respondents could have selected. The Y-axis indicates the percentage. Two bars are shown side by side for each possible answer showing the percentage of BIPOC respondents compared to the percentage of white respondents.
that’s how I feel as someone who’s also an educator. I don’t want to make it a big deal that my class is a certain percentage this or a certain percentage this. I don’t want to make it about percentages... I want to make it about being a community and being a community doesn’t mean that we’re focusing on the individual people.

In her interview, Angie expressed concern that colleges may be focusing too much on the amount of diversity in recruitment materials in an effort to increase prestige. She expressed that diversity is important in that we don’t want some students to feel left out but reiterated the importance of the college and degree program rather than focusing on certain groups of people.

For Leigh, focusing on diversity in recruitment is unimportant and may even be problematic:

You know to me [diversity in recruitment materials] doesn’t matter to me. It’s about the person. I think the person needs to be there it doesn’t matter what color you are. To me, you know, if you’re having to go out just because somebody’s a certain color, whether they’re white, black, you know, polka dots, that shouldn’t matter. That’s never mattered to me. It doesn’t matter how old a person is. It doesn’t, you know? In a way I think it’s kind of wrong. Just because, you know, I mean I think it’s okay to go out to different communities and say “hey, here we are;” like any business you know, you want people to come, but just to say “well we’re diverse because we have this kind of people” you know I think that would turn me away. I’d think well maybe I’m not the kind of person that they want here. Are they actually going to give me the kind of service that I want? Whether it’s you know if I’m going to go in and get my hair cut if they say, “oh you you’re not the right color” or “we have too many of your type here... so you don’t count,” you know that kind of stuff. I just really don’t understand any of that.

In her interview, Leigh cited her rural background and talked about how her upbringing emphasized the person and not their racial or ethnic background. Leigh believes that, as a white person, having colleges and universities focus their recruitment efforts on BIPOC students sends a message that they don’t want to support students like her.

Communication Should Be Accurate
Unlike Angie and Leigh, the rest of the interview participants indicated that they believe diversity is an important focus for colleges and universities. A common theme among interview participants was that colleges and universities should use images of people from diverse backgrounds in their materials, but those images should be accurate in representing campus demographics. Adam talked about his experiences with college recruitment materials when he was choosing a college. He said:

I kind of felt like it was a little bit of false advertisement. I’m fine with like if a university’s being like really upfront or even if business is upfront. It’s like “hey, we don’t have a lot of diversity but we’re trying.” Like I’m fine with that but if I’m getting this false advertisement like “hey look we’re so diverse” and then I show up and it’s just like “no you’re not really like what you showed me,” then I don’t really like that.

Like Adam, Marie believes that it’s OK for colleges and universities to use diversity in their recruitment materials as long as they’re upfront about the accuracy of those images:

If you’re you know showing a place that is more diverse than it actually is, as long as it comes from a place of “well we want to show you guys that we’re supportive of having a diverse place here,” then I think it’s okay as long as there’s at least some form of statistics somewhere so that they can see the actual diversity that they’re going into. They’re not like blindsided by “oh this place looks really diverse. I’m gonna go here” and then they show up and it's not at all.

Unlike Adam and Marie, who believe using images of people from diverse backgrounds is OK even if those images don’t necessarily represent the institution accurately, as long as the institution is truthful about it, Ransom believes that if an institution does not have good representation on campus from specific groups, those groups should not be portrayed in recruitment materials. Ransom gave an example of how he might feel being a deaf student if the college he wanted to attend had misrepresented the number of disabled students on campus:

I wouldn’t want a deaf student like me for example to read a pamphlet and see a school that has that deaf people like me and then go and do a tour and say, “okay but I haven’t seen any deaf people.” I just go in... and then bam there’s no deaf people like me. Then the whole thing was a lie to get me to go into college. It would sound more like a money grab scenario instead of actually trying to introduce me to a community that the college has.

Similar to Ransom, Laurie believes that institutions using recruitment materials to represent diversity that they don’t have is unethical:

I think if a school like [my undergraduate institution] had materials that were all people of color... that would be unethical because that school is very white... even though it is a public school. But I think something like [my current institution], where there is more diversity... I think it’s okay as long as it’s still proportional to the amount... of like diverse students they have.

According to the students mentioned in this section, the use of images of diversity in recruitment materials is unethical when it does not represent the actual amount of diversity at that institution. Two interview participants believe that you can mitigate this unethical practice by providing a disclaimer saying that the images are not accurate or by providing access to statistical data. Two other participants pointed out that not accurately representing the amount of diversity at your institution is deceptive. This idea that misrepresentation of diversity is deceptive relates to the next major theme regarding the ethics of using exaggerated diversity in recruitment materials.

Misrepresenting Diversity is Unethical
Another important theme in the interviews is the idea that misrepresenting diversity in recruitment materials is unethical or even harmful. This theme is related to the answers from the previous section about accuracy. As interview participants pointed out, inaccurate representation of diversity can be seen as unethical behavior. Suzanne believes that institutions making an effort to be
more diverse is admirable, but the motivation behind that effort is important. When asked if it’s OK for colleges and universities to use images of people from diverse backgrounds in their recruitment materials even if the school isn’t very diverse, she said:

Yeah, that’s a, that’s a hard question. I mean, I do respect the fact of them wanting to be more diverse for a school that maybe isn’t diverse. So, if they’re trying to work their way up and they don’t really have much [diversity] to work with then I would understand in that kind of circumstance, but if they’re doing it just for the aspect to look a certain way then I think that it’s kind of based on like morals and stuff. That’s a really tough question.

Like Suzanne, John believes motivation is important. When he looks at college recruitment materials, they come across as insincere:

I look and I see that there’s something fishy going on there. It’s just that three people don’t lay out a blanket and sit in the park you know? You don’t see people smiling carrying textbooks. It seems uncanny. It seems odd.

Jason has a much stronger opinion about the use of people from underrepresented backgrounds in college recruitment materials. For Jason, it’s not just about questionable motivation. He believes that exaggerating the amount of diversity at an institution is purposefully deceptive. When asked about colleges using diversity in their recruitment materials, Jason said:

No that’s lying, like I do feel lied to. I really think universities if they want to fix this whole diversity thing they should focus on [diverse] classes instead of presenting themselves as diverse because I promise you diverse people want to study diverse subjects...I find it as like a way for them to bring comfort to their white students so their white students can feel pleased that they’re going to a diverse school. They can feel woke because oh you know “look I’m going to this school where a girl can wear a hijab and sit on the lawn and talk,” but that’s not actually how it is. It’s just a Caucasian echo chamber...like when you have a group of kids in your class a group of white kids arguing about whether or not you should have rights or when you have like a ton of white people in your class talking about race and like it’s very discomforting.

As you can see from his statement, for Jason, the use of exaggerated diversity in recruitment materials is a symbol for his view of the university as a whole. Jason views the use of diversity in recruitment materials as a way to make people at predominantly white institutions feel better about the institution not being diverse.

In Markus’ interview, he told me about his expectation that [his current] university would be a very diverse institution. He told me about their recruiting events and materials and how they emphasized their diversity. However, when he began attending, the institution was much less diverse than he was led to believe. This was a common theme among interview participants. [The student’s current institution] was not as diverse as they expected it to be. Markus was especially disappointed with the diversity in the faculty:

I know we’re a Hispanic serving institution...That’s cool but when they try to recruit...I went to Catholic high school, and they had an event only for the Hispanics and minority students to come and talk with college recruiters. They hyped that up a lot at [my current institution] when they came to my school but as soon as I get here, we don’t have a lot of Hispanic professors. We have in my time since I came in 2014 as undergrad, and I’ll graduate in May with my masters, one was African American, one was Asian. So yeah, it’s cool with showing a diverse pamphlet showing we have a myriad of students of various backgrounds but that’s not true. Yes, have the diverse background. Have those brochures showing, you know, groups of everyone, but be more in line with what the reality is...Transparency is what we’re shooting for.

Although all interview participants, except for one, indicated that they thought recruiting for diversity was a valid goal for colleges and universities, no interview participants indicated that using exaggerated depictions of diverse groups of students as a means to attract students from underrepresented backgrounds was a good ethical decision. Even knowing that college would likely improve the lives of these students, interview participants still saw deceptive depictions of diversity as morally wrong.

DISCUSSION

Trying to bring in students from diverse backgrounds into academic programs brings up a difficult issue. How can administrators bring in a diverse group of students when they don’t already have a group of students and faculty to whom students from underrepresented backgrounds can relate (Blackmon, 2004)? How can program administrators work on being more inclusive if all the voices on the campus are homogenized? Should colleges and universities use deceptive recruitment materials as a way to recruit a diverse group of students into academic programs to create a more diverse and inclusive space for students who will attend later? Does the eventual development of a more diverse faculty and industry justify using deceptive means to recruit students now? After all, a student who attends college has a much better chance at class mobility and financial success (Bowen, 1977; Card, 2001; Dearden, McGranahan, & Sianesi, 2004; Pascarella & Terenzini, 2005). University administrators might be tempted to say, “By attracting underrepresented students, are we not giving them an opportunity they might not otherwise have?”

As pointed out by both survey results and interview participants, inaccuracy in college recruitment materials is seen as a form of deception. Students, especially BIPOC students, who view recruitment materials with exaggerated numbers of diverse students feel manipulated. For example, students may attend an institution of higher education with the expectation of a certain level of diversity and support for students from diverse backgrounds, only to be met with disappointment. Seven out of 10 interview participants indicated that they expected [the university] to be very diverse based on the communication they received. Five of the interview participants mentioned their disappointment with the amount of diversity they found at the institution when they enrolled. Students who enroll at an institution with the expectation of a diverse campus only to realize that the institution is not nearly as diverse as advertised may form opinions about that institution that can not only damage the institution’s reputation but may also have repercussions for the students’ success.

From the survey results, we see that the majority of the total
Although a majority of survey respondents indicated that colleges should not exaggerate their diversity in their recruitment materials, the indication was much higher among BIPOC students. This may be because students of color have more at stake. For them, the ends of possibly getting more students of color through the doors of the institution may not justify the means of misrepresenting diversity to get them there, and their fears are justified. Although the gap in the number of students of color being admitted to predominantly white institutions (PWI) versus the number of white students being admitted is shrinking (Haycock, 2001; Ohene-OAKE, 2017). PWIs often lack the support structures needed to ensure students persist to graduation (Casselman, 2014; McClain & Perry, 2017).

For students of color, there are more than just moral implications for being drawn to an institution under false pretenses. Program administrators often paint a rosy picture of the experience the student will have at an institution, leaving out harsh realities, in order to convince the student to choose said institution. Does a little embellishment justify the boost diversity will give to academic departments and the opportunities that will be possible for students of color who enroll? Program administrators may attempt to answer these questions and implement strategies themselves, but people in power are not the best equipped to answer these types of questions. This is why the inclusion of diverse voices is so important. Researchers and administrators need to work with their marginalized students to identify areas of marginalization. Coalitional approaches which include listening to and being guided by those who are marginalized can aid administrators as they strive to reason out ethical recruitment strategies. If the intent of recruiting a diverse class of students is to bring students from underrepresented backgrounds in purely for diversity’s sake, then the intent of those doing the recruiting is misguided. However, if program administrators bring in students from underrepresented backgrounds with the intention of inviting them to shape department policies, implement effective recruitment strategies, and support students to graduation, that is a goal rooted in inclusivity which puts the needs of students first.

Limitations
This study represents only a small sample size of students. Although the data seems to point to students’ general disapproval of colleges and universities exaggerating their diversity in recruitment materials, this sample size is not large enough to be generalizable.

The language used in both the survey and interview questions may have influenced the answers students gave. Although participants seem to understand the practical nature of utilitarianism, they also seem to identify honesty in communication as a moral imperative. Because words such as “honestly” were associated with communication in recruitment materials, it’s possible that some students simply rejected the deceptive communication associated with exaggerating diversity in recruitment materials because they viewed it as morally wrong rather than weighing the practice with possible consequences.

Future Research
As mentioned above, this paper represents only a small sample of students and an even smaller sample of BIPOC students. Future research regarding the recruitment of BIPOC students should include the voices of marginalized people. Research projects could include a UX analysis of recruitment materials focusing on the effectiveness of the use of images of diversity, interviews with BIPOC who have successfully completed a degree program, and those who have dropped out to find out how the promise of support for diversity influenced their college decision and how this decision affected them in the long run. Another project could include interviews with BIPOC faculty members to learn their perceptions of using images of people from underrepresented groups in recruitment materials. These projects could result in recommendations for the types of images that should be used in college recruitment materials.

Researchers should consider examining the ethics of college recruitment through the lens of other ethical frameworks. For example, Colton, Holmes, and Walwema (2016) extended Katz’s (1992) thinking (as discussed in the literature review) through an exploration of the ethics of tactical technical communication used to further social justice causes. Colton et al. caution against thinking in ethical binaries and advocate for adoption of Cavarero’s (2011) ethic of care:

For Cavarero wounding and caring do not correspond to a basic binary (e.g., wounding = bad, caring = good). Rather, these terms offer a set of fluid ratios to allow us to characterize the totality of relations of those affected by a given tactical action, and, in turn, attribute ethical behavior which, in some cases, will involve wounding certain individuals to help ensure our collective ability to ensure an ethics of care for the most vulnerable. (Colton et. al., 2016, p. 60)

The ethic of care, along with several other frameworks, could be used to give valuable insights into the ethics of recruiting students from marginalized backgrounds.

Another consideration for future research would be to explore whether accurate depictions of campus diversity negatively affect campuses by reducing the diversity of the campus and reinforcing the status quo.

Conclusion
Having a diverse student body is advantageous to students from both underrepresented and majority groups. Diverse classes have been shown to increase interpersonal understanding and cognitive growth, as well as an increase in positive learning outcomes for all parties (Gurin, Dey, Gurin, & Hurtado, 2002; Gurin, Nagda, & Lopez, 2004; Terenzini, Cabrera, Colbeck, Bjorklund, & Parente, 2001). Besides enriching the higher education experience and adding a variety of viewpoints to our dialogue, increasing the variety of student backgrounds in academic programs will also
likely create a chain reaction that will reach into the academic and professional world. The more students from underrepresented backgrounds enroll in academic programs, the more they will fill graduate programs, take up faculty positions, and move into industry (Savage & Mattson, 2011). As stated previously, diverse representation in recruitment materials often does not reflect the overall diversity of the campus. This type of inaccurate representation in recruitment materials was linked with deception in the eyes of the participants of this study. Students who view deceptive recruitment materials may feel tricked when they arrive on campus and realize that they are now the student on the cover of the brochure that they saw while in high school (160over90, 2012). Students aren’t looking for a few diverse faces in a crowd. They’re looking for a community in which they can relate and feel comfortable (Blackmon, 2004). They’re looking for faculty and scholars who look like them and have similar backgrounds and values. And beyond adequate representation, they’re looking for a place to be included and heard. They’re looking for a voice: “...consideration of inclusion can often be characterized as voice, pointing to the idea that allowing a space for voice eliminates oppressive silences...” (Jones, 2016, p. 478).

In reporting the importance of accuracy in representation for college recruitment materials I do not mean to imply that any level of minority representation that does not match the institution’s demographic distribution is deceptive. As Pippert, et al. state, “we are not suggesting that colleges publish viewbooks that exactly mirror their current student body. It would be ludicrous to expect that every photographic image of the student body be tied directly to the percentage enrollment of that group” (2013, p. 276). However, university administrators should remember, people in privileged positions have power to silence or support the voices of marginalized or oppressed populations (Jones, 2016). When administrators only use students of color to further an agenda of increased physical diversity, they are missing an important aspect of diversity which is inclusion, that is to say, creating spaces for diverse voices to be heard. Students of color may interpret a recruitment brochure to mean that a college or university is an inclusive place that encourages diverse points of view in an inclusive atmosphere. However, if a student comes to campus and discovers a different reality, her/his voice may effectively be silenced when s/he realizes that s/he is not in the inclusive environment s/he thought would be there.

Although using images of people from diverse backgrounds in recruitment materials seems like a logical choice to some, this choice can be harmful. Colleges and universities want to show support for diversity and want to attract students from diverse backgrounds, but many lack the support structures needed to support BIPOC students (Casselman, 2014; McClain & Perry, 2017). As we can see from the results of this study, students of color do not want to see exaggerated images of diversity. These images don’t represent acceptance, they represent failure to do the real work of inclusion needed to attract students of color and support them to graduation.

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**REFERENCES**


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The evolution of digital tools and platforms has ushered in new possibilities for researchers, scholars, and practitioners of rhetoric and composition and adjacent fields like technical communication. These technologies change the ways we can gather, store, and use larger datasets, prompting new discussions on what big data methods look like in the field. The chapters housed in Amanda Licastro and Benjamin Miller’s edited collection *Composition and Big Data* investigate the promises, concerns, and areas for further conversation regarding the applications of big data methods in composition-focused research.

**Summary**

Licastro and Miller, along with the contributing authors, call for a more deliberate and critical integration of big data tools and methodologies into composition-focused research. Grounding this need, they observe, “Big data has changed the way information is processed, and thus the environment in which writing happens” (p. 3).

They proceed with a cautious optimism through 16 chapters organized into four sections: (1) Data in students’ hands; (2) Data across contexts; (3) Data and the discipline; and (4) Dealing with the data’s complications. In concert, these chapters create a comprehensive portrait illustrating the role big data plays in reimagining traditional methods of composition research and carving out new approaches. I observed a subtle organizational structure, fitting all chapters regardless of focus. First, all chapters open with the current status of their research and/or pedagogy as it relates to methods traditionally privileged in composition-focused scholarship. The contributing authors then introduce a method and/or tool for big data gathering, making precise connections between the aims of their hypothesis or argument and noting how that specific big data method or tool contributes to their research and associated teaching practices. The authors conclude with a dual evaluation: (1) the implications of their findings within more traditional composition scholarship; and (2) the knowledge gained by thoughtfully integrating big data practices and technologies.

Section One, “Data in Students’ Hands,” considers how big data can inform individual classroom pedagogy. In “Learning to Read Again: Introducing Undergraduates to Critical Distant Reading, Machine Analysis, and Data in Humanities Writing,” Trevor Hoad and Nicole Emmelhainz detail classroom practices integrating distant reading tools into the writing classroom. They emphasize, “[I]ncorporating classroom practices into distant reading will not only assist students in their ability to think, as it requires metacognitive reflection upon thinking itself, but will foster new forms of thinking based upon machinic collaboration” (p. 25). Where Hoad and Emmelhainz examine distant reading as a way for students to assess style, Chris Holcomb and Duncan A. Buell, as well as Alexis Teagarden, investigate the use of big data tools and methods for evaluating specific writing practices. Holcomb and Buell, for instance, detail an approach for gauging the writing styles of those in college composition courses. Refining the applications of big data to better understand more specific rhetorical moves of first year composition students, Teagarden discusses the use of AntCon to gather and evaluate keywords as they indicate strategies for synthesizing sources and ideas.

Section Two, “Data Across Contexts,” extends big data methods into larger programmatic assessments and “cross-curricular” evaluations (p. 12). “Localizing Big Data: Using Computational Methodologies to Support Programmatic Assessment” by David Reamer and Kyle McIntosh and “Big Data as Mirror: Writing Analytics and Assessing Assignment Genres” by Laura Aull both indicate that big data methods are useful for illustrating student
writing trends over long periods of time. Using topic modeling informed by corpora from both composition and chemistry courses, in “Peer Review in First-Year Composition and STEM Courses: A Large-Scale Corpus Analysis of Key Writing Terms,” Chris M. Anson, Ian G. Anson, and Kendra Andrews trace the strategies students employ when feedbacking peer writing in various academic contexts, namely comparing feedback provided in both writing and chemistry courses. Kathryn Labreicht, informed by her use of WordSmith Tools to assess the understandings of variations of the term “disciplinary” (e.g. interdisciplinary, multidisciplinary, cross-disciplinary, and transdisciplinary) points to how big data tools and methods can better inform scholars looking to work within and beyond a specific discipline (p. 137).

Section three, “Data and the Discipline,” explores big data’s role in understanding the status of the field of rhetoric and composition and its related disciplines. In “From 1993 to 2017: Exploring ‘A Giant Cache of (Disciplinary) Lore’ on WPA-L,” Chen Chen uses distant-thin methods to analyze the email subject lines of contributions made to the WPA listserv, observing that the WPA-L represent processes of knowledge and our discipline in the making (p. 154). As such, big data methods provide additional avenues for collecting and analyzing changes in disciplinary conversations across contexts. Following Chen, Jenna Morton-Aiken then “[argues] for a relational architecture as an archival infrastructure methodology able to bridge Digital Humanities, archival theory, and Rhetoric with network theory” (p. 160) and using the results to shape the role of Digital Humanities and big data tools within the field of Rhetoric and Composition in “Composing the Archives with Big Data: A Case Study in Building a Collaboratively Authored Metadata Informational Infrastructure.” Kate Pantelides and Derek Mueller analyze the temporal trends of major conferences in Rhetoric and Composition and adjacent disciplines in “Big-Time Disciplinarity: Measuring Professional Consequences in Candles and Clocks.” They nod to the need for flexible interpretation and a willingness to synthesize data gathered and assessed through various big data methods. Rounding out section three, Cherly E. Ball, Tarez Samra Graban, and Michelle Sidler call for a more open collaboratory of data to support research that transcends specific times, places, and courses in “The Boutique is Open: Data for Writing Studies.”

Section four, “Dealing with Data’s Complications,” more explicitly examines the ethical considerations undergirding big data methods. In “Ethics, the IRBs, and Big Data Research: Toward Disciplinary Datasets in Composition,” Johanna Phelps suggests the creations of a student writing repository, grounded in informed participant consent and careful attention to participant anonymity. Further considering the privacy of participants in big data work, Andrew Kulak reminds us that big data practices in composition are often accompanied by algorithms in “Ethics in Big Data Composition Research: Cybersecurity and Algorithmic Accountability as Best Practices.” While technically just lines of code, Kulak reminds us that algorithms “inform our understanding of what writing is or how writing programs function exist within a historic system that has functioned to maintain dominant social structures and ideologies” (p. 240). “Data Do Not Speak for Themselves: Interpretation and Model Selection in Unsupervised Automated Text Analysis” by Juho Pääkkönen and “Unsupervised Learning: Reflections on a First Foray into Data-Driven Argument” by Romeo García echo Kulak’s observations on the subjective, hegemonic nature of big data methods, especially as it relates to unsupervised learning.

Concluding the text, Jill Dahlman provides in “Making Do: Working With Missing and Broken Data” best practices for working with datasets with imperfections. She suggests researchers see incomplete or imperfect data as parts of an ongoing conversation, one we must listen to if we are to successfully continue any kind of pedagogical, programmatic, or research-based inquiry.

Analysis
The research and theory presented in Composition and Big Data is framed in the broader field of rhetoric and composition; however, there’s much that those in communication design and technical communication can gain. All chapters in this book are human-centered, meaning that the authors’ studies and findings reflect and demonstrate how big data methods can work toward the benefit of the participant. In that vein, I found the chapters included in this book—especially chapters 8 (Chen), 12 (Phelps), 13 (Kulak), and 15 (Garcia)—situate big data into the calls made by Walton, Moore, and Jones in Technical Communication After the Social Justice Turn (2019).

Not only do the included contents examine big data and its associated tools and methods within composition studies, but the authors also provide close, personal accounts of their experiences as they enacted and grappled with these approaches. One area for conversation I hope this work encourages—especially as it relates to the collection, storage, and study of student writing—is ways global rhetorics, including meaning-making and information sharing, can further influence and refine big data practices.

This text packs great promise for those working in or studying communication design or technical communication. First, it introduces new digital tools and platforms accompanied with detailed accounts of the contexts in which they were used, as well as their affordances and areas for further consideration. Second, many of the chapters name and discuss the growing presence of the Digital Humanities (DH), demonstrating how compositionists in diverse areas of study can leverage DH methods within big data research to progress the field in ethical ways. Finally, this book aligns with the human-centered focus of communication designers and technical communicators by emphasizing the dual nature of human existence. We are no longer just physical bodies but digital bodies, and our methods and practices should reflect that.

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Book Review

*Type Matters: The Rhetoricity of Letterforms*

edited by Christopher Scott Wyatt and Dànielle Nicole DeVoss


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Understanding the characteristics of letters—their names, sounds, relations to the other letters, and shapes (aka letterforms)—is at one point in our lives so new that we need elaborate learning aids. But, after decades of reading and writing, letterforms become nearly invisible to most people, despite our daily use of text. *Type Matters: The Rhetoricity of Letterforms* challenges that invisibility.

Collection editors Christopher Scott Wyatt and Dànielle Nicole DeVoss narrow their visual rhetorical focus on typography to examine how typefaces communicate meaning (p. xiv). For too long, the prevailing principle of typography was that it should be invisible to the reader, metaphorized as a crystal goblet holding wine: the liquid remains the same no matter the cup (p. 6). *Type Matters* strives to show how this presumed neutrality effectively obscures meanings both intended and not. Though addressed to an audience of scholars in rhetoric, composition, and writing studies, the collection offers contributions to scholars and professionals in graphic design and technical and professional communication.

Co-editor Wyatt provides a foundation for the collection in the first chapter, “On Type and Typographic Anatomy.” This essay gives an historical overview of typeface, the influence of desktop publishing and web design on typefaces, and international standards on typeface classification; and a visual and textual glossary of letterform terminology. Appreciation for letterforms is revisited in “‘All Your Font Are Belong to Us’: Gaming in the Late Age of Print” by Elizabeth J. Fleitz. Fleitz writes a rich and interesting analysis of the iOS game *Type:Rider*. Created to inspire appreciation for typography and its history, the game board is made of letterforms that are de- and reconstructed, emphasizing that design cannot be separated from content.

In “Type Reveals Culture: A Defense of ‘Bad’ Type,” Garrett W. Nichols considers cultural associations that we make with type by exploring Comic Sans. Criticized by many as unprofessional or unserious, Comic Sans is championed by others as readable and friendly. Nichols analyzes three examples of “bad” typefaces and the rhetorical implications that render necessary those typeface choices. Philip Rice’s chapter picks up the thread of font snobbery in “‘Give Us Back Our Serifs’: The Cultural Rhetoric of Rage Against the [New] Google Logo.” Rice chronicles with wit and sarcasm non-designers’ reactions to Google’s 2015 logotype update. Like Nichols, Rice homes in on the idea that class shapes aesthetics, particularly that judgment tracks along the lines of free type=bad and paid type=good.

Implicit cultural codes inscribed to typeface reveal greater ethical considerations, according to Heather Noel Turner. In “The Development of Typeface Personas and the Consequences of Perceived Identities,” Turner lays bare the impact of typeface choices. Her excellent review of studies on typeface personalities gives her the basis to demonstrate to show the rhetorical use of typeface persona in social campaigns. Like Nichols, Turner discusses a particular moment in recent history when dragging Comic Sans revealed greater problems than typeface choices. Both authors unpack the online commentary that derided the use of Comic Sans on tee-shirts worn by NBA players protesting the murder of Eric Garner. Both highlight how the collective critique about typeface—not the loss of life at the center of the action—belied the implicit coding about class, gender, and race people attach to typefaces. Turner concludes that we must consider the contexts cultural markers of typeface.

Ames Hawkins continues the examination of a typeface’s cultural markers in “Why I Hate Times New Roman, and Other Confessions of a Creative-Critical Scholar.” Hawkins details their...
visceral response to Times New Roman as an instinctual response to the affect of the typographer. Hawkins’ discussion exemplifies writing from a point of positionality, but not about positionality (see Alcoff), both in their reflections on Times New Roman and on their book project about their parents’ old, handwritten love letters. Writing instructors will find this essay an inspiring exemplar; designers will appreciate the discussion of how typefaces impart value to audiences.

One genre where typeface value is more overt is comics. In “Nostalgia for Handwriting: The Rhetoric of Comics Lettering,” Aaron Kashtan maintains that comics offer a unique look into reader perceptions of typography. He explains that in key ways hand lettering contributes to unity: it reads as part of the graphic, and it allows the reader to imagine a relationship with the author. These effects help explain a resurgence of hand lettering in typography, even in instances when hand lettering is simulated digitally. Kashtan’s argument supports the typographic personality and cultural contexts discussions throughout this collection.

Whether a typographer intends a typeface to impart ideology, the use of typeface to shape community identity is undeniable. Designer Jan Tschichold’s renunciation of his earlier principles of typography is the jumping-off point for David Bedsole’s exploration of typeface ethics in “Jan Tschichold’s Renunciation of Die Neue Typographie: The Anatomy and Ethics of a Typographical Reversal.” Through rhetorical analysis, Bedsole determines that the crux of Tschichold’s renunciation was his earlier work’s similarities to the Gleichschaltung, the process through which the Nazi party took over control of other states. Bedsole skillfully moves from this moment to argue for broad consideration of the ethics of typography. This essay would be well-suited to several different pedagogical settings in graphic design, composition, rhetoric, and technical communication for its content, prose, and argumentation. Where Bedsole examines one instance of typeface and nationalism, Jake Cowan broadens the concept in “Typographic Nationalism and the Banal Uniformity of Imagined Communities.” Here, Cowan outlines how ideologues use typeface to foster national identity (his portrayal of the two-typeface debate in Germany and its ultimate resolution is especially enlightening). Cowan considers, too, how commonplace and default typefaces effectively drive shared identity. In “Logotypes in Place: A Visual Rhetorical History of Cigar City,” Meredith A. Johnson, Peter Canno, Roxanna Palmer, Joshua M. Rea, and Tanya Zarlenso study the role of cigar brand logotypes in shaping Cigar City in Tampa, Florida. The authors argue that logotypes work together with a location and people to create identity.

Standardized typography necessarily limits writers and readers to communicate using a proscribed typeface. In considering how such limitations impact writers and readers, John R. Gallagher and Rebecca Tarsa compare Facebook and Tumblr in “Standardized Typography in Interactive Internet Environments.” Facebook limits typeface but Tumblr allows for some customization by the user (Facebook has since added limited type options). The limitations curtail a rhetor’s persuasive tools, they argue, but readers receive the “shared typography” as a signal for how to engage with the message (p. 330). Additionally and importantly, they note that a user’s ability to change typeface settings makes these sites more accessible for disabled people. The Kindle e-reader is another technology that limits typeface and font choices. John Logie explores the challenges and implications of creating a typeface in digital for digital but made to feel like a print experience. In “Why

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In “Font of Wisdom: The Vernacular Rhetoric of the Serenity Prayer,” William T. FitzGerald delivers a fascinating historical recounting of how this so-called secular prayer was created and went “viral.” Over time, home décor and personal talismans reproduce the prayer in increasingly stylized depictions, from austere (single font) to artistic (single typeface, multiple fonts) to ornate (multiple typefaces and fonts), each rendition using typefaces to reflect different interpretations. FitzGerald argues that these exchanges create bonds over shared values. This essay about vernacular rhetoric could be helpful to scholarship on internet memes.

In the final chapter, “Kinetic Typography: Reinserting Embodied Delivery into Recorded Oral Texts,” authors Christal Seahorn, Diana I. Bowen, Charles Jeffery Darwin, and Dragana Djordjevic discuss the affective traits of kinetic typography. Kinetic typography is the term of art for animated text, perhaps most easily recognized in the moving text of movie title sequences. This study looked at videos comprised of an audio track and moving type (i.e., the speaker is absent from the visual). They theorize that kinetic typography’s persuasive effect is similar to an orator despite the absence of nonverbal visual cues of a speaker. As the closing piece of this collection, “Kinetic Typography” makes clear that typography is anything but invisible.

Type Matters is an academic text drawing from interrelated scholarship in design, typography, and rhetoric. The analyses and studies discussed offer a variety of lenses through which to consider the ways we use typography in communication. They also demonstrate a range of approaches to scholarly writing. The context of most discussions is English-speaking North America, although some designers discussed are British and German. The book assumes a reader is familiar with the history of movable type and typography terminology, so using it in a class requires some work to supplement the text.

A practitioner in design or technical communication may enjoy the theory and history presented in the book. The authors give many examples of how passionately non-designers engage with typeface (see especially Nichols, Rice, Turner, and FitzGerald), sometimes even when popular opinion is opposite that of trained designers as in response to Google’s logotype change. If that divide happens between a designer and a client, designers may find Type Matters a useful tool for talking with clients about typographical choices. All in all, the collection would be an exciting addition to courses on visual rhetoric, typography, document design, queer rhetorics, or writing studies.

**ENDNOTES**

1. Kinetic typography a.k.a. “moving text” is not to be confused “movable type.” Movable type is the print technology allowing for arrangement of individual characters to make text that can be printed on a page.
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Book Review

*Rhet Ops: Rhetoric and Information Warfare*
edited by Jim Ridolfo and William Hart-Davidson


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*Rhet Ops: Rhetoric and Information Warfare* provides a timely set of perspectives on the intersections of digital rhetoric and militarized operations conducted to foment or curtail violence. Rhet ops, shorthand for rhetorical operations, refers to the use of rhetorical theory by state or non-state actors to carry out coordinated military actions (operations). Perennial questions about rhetoric, ethics, and technical and digital communication (i.e., Katz, 1992; Lanham, 1993; Ward, 2014) inform 16 chapters by practitioners and academics who provide analytical and practical insights into “what it means to learn the art of rhetoric as a means to engage adversaries in war and conflict” (Ridolfo & Hart-Davidson, p. viii, emphasis in original). Rhet Ops’ focuses on “the dark side of digital composing” (Ridolfo & Hart-Davidson, p. 3, emphasis in original)—from GamerGate to ISIS to the seemingly benign digital interfaces we interact with every day—making it especially salient in a time when violence and rhetoric intertwine constantly. Further, editors Ridolfo and Hart-Davidson have curated examples of #RhetOps on Twitter for years which fosters indefinite public tracking of #RhetOps, a move toward accountability.

Part I: Rhetorical Operations and Emerging Tactics offers an array of chapters that show “how the military and intelligence community understand rhetorical theory and information warfare” (Ridolfo & Hart-Davidson, p. 11). Elizabeth Losh opens the book by examining the military telegraph’s role in US colonialism through a case study of army maps of telegraph networks, reports, and manuals that illustrate the rhetoric of infrastructure as part of US colonization in the Pacific and Caribbean. In Chapter 2, Gary Mills, a former officer and current professor at the US Air Force Academy, examines intelligence analysts as rhetorical operators, arguing that rhetorical theory can be and has been ethically applied to warfighting and imagining more collaboration across academe and the intelligence community. Tempering Mills’ optimistic outlook is Nate Kreuter’s condemnation in Chapter 3 of the intelligence community’s (IC) misuses of academic theory which sow distrust of the IC. Pointing to examples of ethical and unethical uses of rhetorical theory to inform a theory of intelligence analysis, Kreuter calls for “a system of ethics and ethical monitoring” of collaborations between academe and the IC to avoid instrumentalizing theory and ensure its ethical application (p. 64).

Mike Edwards’ Chapter 4 expands on Kreuter’s work by comparing rhetorical and historical-material aspects of US army documents with “carefully attuned cross-cultural rhetorical appeals” in English-language magazines published by Al-Qaeda in the Arabian Peninsula and ISIL (Edwards, p. 69). The latter publications feature sleek visual and textual design elements and content that blend Western and Arab-Islamic aesthetics, thereby boosting the magazines’ rhetorical velocity and blurring the line between “the open hand and the closed fist” (Edwards, p. 75). Further blurring that line is the Minerva Research Initiative in John Gagnon’s Chapter 5. A Department of Defense project founded in 2008 as “a military-to-academia funding pipeline” (Gagnon, p. 79), Minerva funded humanities and social sciences research to the tune of $75 million in its first decade (p. 84). Reviewing projects funded by Minerva, whose agenda is set by the Department of Defense, Gagnon asserts that they “weaponiz[e] rhetoric for systemic use across ‘the bloodless battlefields of information and influence’” (p. 85) and calls on the field to “interrogat[e] the implications of weaponized rhetoric as deployed abroad, and domestically” (p. 87).

Chapter 6 shifts to a 1960s precursor to rhet ops conducted by the Students for a Democratic Society, the Weatherman, and the Weather Underground. Tracing ways these groups “became infused with violence, weaponizing media to enact rhetorical performances against the state that would, consequently, inform the decades
of anti-state protest that followed“ (p. 91), Brad E. Lucas shows how the mimeograph propelled the production and circulation of informational documents resisting imperial violence in southeast Asia and state surveillance and repression domestically, including repression aimed at the Black Panther Party. Michael Trice’s Chapter 7 takes up disruption of a different kind, that of GamerGate, to “understand how social media platforms invite an ethic of knowledge disruption” (p. 107). He demonstrates how an ethic of dissent underwrote GamerGate, noting that this “new activism of dissenting knowledge work […] represents one of the most significant new dangers to online communication” (Trice, p. 108).

Part 2: Digital Practices begins with William M. Marcellino and Madeline Magnuson, who use machine-based analysis of linguistic corpora by the US government in English and by ISIS in Arabic to comparatively analyze their communication strategies. Finding more similarities than they expected, the authors suggest that to be persuasive to Arabic-speaking audiences “US rhet ops need to be informed by what groups like ISIS are doing discursively” (Marcellino & Magnuson, p. 137). In Chapter 9, Ryan Omizo turns to a domestic threat from Stormfront, the oldest white nationalist digital platform, to discern its function as an educational space—specifically, how posts about technical firearms content facilitate learning. He reveals “how white supremacists mobilize around key nodes of knowledge” and provides organizations like the Southern Poverty Law Center with a new digital tool to monitor online white supremacist discourse (Omizo, p. 144).

Chapter 10 may especially interest communication designers because John Gallagher examines “dark interactions,” or “the idea that websites may implement design trickery to elicit secure data from users” (p. 159), a concept he expands into object arrays to account for the lifecycle of online information. Importantly, dark interactions can both entice users to participate in their own surveillance and be tools of resistance. Seth Long and Ken Fitch continue this theme in Chapter 11 on law enforcement’s digital surveillance of graffiti as urban gang communication, which they monitor by using a database of photos and GPS coordinates that can be used to build a criminal case and to anticipate gang conflicts. Long and Fitch consider the notion of direction, or vector, in rhetorical velocity, as that velocity moves in one direction for street gang audiences and another for law enforcement tracking graffiti metadata.

The last section, Part 3: Practitioner Stories, begins with Jeffrey Collins and Gary Mills on the rhetorical and design education at Air Force CyberWorx, a design studio and maker space at the US Air Force Academy where cadets train in design thinking and practice rapid prototyping while keeping ethics and empathy at the forefront. In one example, cadets researched cyber operators’ user experience at five Air Force bases and proposed solutions to improve UX. In Chapter 13, navy veteran Angie Mallory returns to the ethical imperative that should drive rhetorical operators in her story of overcoming barriers that prevent fruitful exchanges between academic rhetoricians and rhetorical operators. While co-chairing SIGDOC, Mallory made contacts that led her to work on a joint doctrine on “war [as] a primarily human endeavor” (p. 208). Calling on the field to cultivate relationships that prepare rhetoric graduate students to “be effective when integrated with operations” (p. 204), Mallory reveals a path for rhetoric degree-holders who want to contribute to the complex work of using persuasion to disrupt, mitigate, or avoid violence.

Laura A. Ewing chronicles her work recommending a social media strategy for the American Red Cross Service to the Armed Forces in her capacity as a strategic communications advisor in Chapter 14, while in Chapter 15 D. Alexis Hart and Cheryl Hatch offer a collection of war reporters’ stories, showing how the evolution of information communication technologies has changed who controls the narrative attracted to conflict. From reel-to-reel tapes to wireless internet, the technological means of reporting about wars and the layers of oversight attached (or not) to war reporting affected public perception of wars from Vietnam to 21st century conflicts. Elise Dixon concludes the book in Chapter 16 with an analysis of how military wives resist the military’s attempts to treat them as “force multipliers” through the women’s tactical uses of communication to co-opt and undermine the military’s sexist and classist assumptions about them (p. 233).

While Rhet Ops centers on the ethical use of rhetorical theory in (mostly) digitally mediated situations involving asymmetrical violence, the editors’ closing provocation includes communication designers and technical communicators working in industry, the military, nonprofits, and academia. This is because rhetorical operators use design elements to undermine knowledge-makers (Chapter 7), capture information from unwitting users (Chapter 10), and resist structures of oppression (Chapters 4, 6, and 16). Indeed, communication designers, like others schooled in rhetoric, must “establish some ground rules and limits for deploying weaponized digital rhetoric” because rhetorical knowledge (and design knowledge) is “already being put to use by state and non-state actors” (Ridolfo & Hart-Davidson, p. 248). As such, despite many academics’ and designers’ distaste for the dark side of digital composing, Rhet Ops exemplifies the urgency of serious engagement with it. Rhetoric has and will continue to be weaponized in digital spaces, and rhetoricians must, as a matter of ethics and responsibility, be involved. As the editors aptly conclude, “Whether we each choose to sit at the table or not, rhetorical studies is already there” (Ridolfo & Hart-Davidson, p. 248).

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