"TAKE ACTION IN THE WORLD!":
ADVOCACY AND RECIPROCITY AS RESEARCH PRACTICES IN TECHNICAL
COMMUNICATION

By

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ABSTRACT

"TAKE ACTION IN THE WORLD": ADVOCACY AND RECIPROCITY AS RESEARCH
PRACTICES IN TECHNICAL COMMUNICATION

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This dissertation examines how scholars in technical and professional communication conduct research related to social justice. I define social justice research, then identify and visualize disciplinary activity related to social justice over a 10 year (2006-2016) time span. Using data visualizations and critical computations as a methodological heuristic, I present the practices of four scholars conducting social justice research to offer thematic data narratives. I found that scholars can enact social justice when they intentionally integrate principles of advocacy and reciprocity across the arcs of their research processes. Advocacy occurs when researchers negotiate, accommodate and facilitate justice across research settings, throughout research processes, and with research partners. Reciprocity occurs when researchers structure opportunities to exchange knowledge, labor, and resources with participants *and* related peoples, communities, organizations, and nonprofits. The data from 960 conference presentations and four semi-structured interviews with technical communication researchers reveals that technical communication as a field has commitments to inclusion, public action, and increasing individual agency. Social justice researchers enact these commitments through their research processes, across research contexts, and with various research partners.

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CHAPTER 1: DISCIPLINARY ACTIVITY AND MATERIAL CONSEQUENCES

On August 2, 2017, the National Association for the Advancement of Colored People (NAACP) issued a statewide travel advisory—its first ever since the organization was founded in 1909—for Missouri. Three years after Michael Brown's death, the acquittal of the white police officer who killed him, and the protests in Ferguson and St. Louis, this advisory asked

> African American travelers, visitors and Missourians to pay special attention and
> exercise extreme caution when traveling throughout the state given the series of
> questionable, race-based incidents occurring statewide recently.

Some of those race-based incidents from the past 5 years include the newly passed state law Senate Bill 43 that

> hearkens back to the Jim Crow-era. The Bill legalizes individual discrimination
> and harassment within the State of Missouri, and would prevent individuals from
> protecting themselves from discrimination, harassment and retaliation in Missouri
> (NAACP).

The advisory also cited a study conducted by the Attorney General that found black drivers were stopped by police at a rate 75% higher than white drivers.

Before the NAACP travel advisory was announced, Missouri was chosen as the 2018 site for two flagship conferences for the Conference on College Composition and Communication (CCCC) and the Association of Teachers of Technical Writing (ATTW). After news of the travel advisory, many members of both organizations shared their concerns on social media, listservs, and in joint caucus letters, asking for responses from the organizations as well as action.

Scholars in technical communication have long sought to address the complicity of communication in acts and systems of oppression and exclusion through their research and

teaching (Rude, 2009). The origins of this work are distributed and expansive, appearing in conversations around writing and technology (e.g. Selfe & Selfe, 1994; Selber, 2004; Pandey, 2006; Turnley, 2011), cultural studies and technical communication (e.g. Scott, Wills, & Longo, 2006; Johnson, Pimentel, & Pimentel, 2008; Koerber, 2000; Arasaratnam, 2014; Sun, 2012), and most recently social justice (Agboka, 2014; Jones, Moore, and Walton, 2016; Haas, 2012). These scholars have dedicated conversations to consider how rhetoric and technical communication can and should be accountable for promoting ethical, political, inclusive, and just practices.

Despite a dedication to social justice in technical communication scholarship, researchers have documented a lack of "racial and ethnic diversity among technical communication students, faculty, and practitioners" (Savage & Matveeva, 2011, p. 58) and obstacles to "equitable representations of diverse populations in student enrollments, in faculty, and in curricula" (p. 6) (Savage & Mattson, 2011). One of the major obstacles noted by these scholars was the separation of the work of the discipline (research, teaching, and service) from the practices of the discipline (recruitment, management, administration): "We may have regarded the challenges of working for program diversity to have no direct connection to our agendas for research, teaching, or service" (p. 6). In other words, some technical communication programs not yet considered diversity as a disciplinary practice.

The ATTW's executive committee response to the NAACP's 2017 travel advisory marks a significant moment where a direct connection between social justice scholarship and social justice as a practice of the discipline is not only articulated, but enacted.[1] On September 26, 2017 ATTW President Michelle Eble and Vice President Angela Haas wrote to members of the

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[1] Many programs, administrators, and especially scholars and teachers of color advocate for this kind of embodied disciplinary work and struggle against constraints like contingent positions, funding, overtly oppressive institutional workings, and more.

organization, notifying them that the conference would be moved across the river to Kansas:

> Given the social justice turn in technical communication, along with the current
> political and cultural climate, we feel strongly that our organization must continue
> to promote increased participation by members from underrepresented groups as
> their perspectives and contributions are essential to the future of our field.
> Maintaining and sustaining this vision and mission means that we must prioritize
> the voices and safety of our most vulnerable members. As such, the ATTW
> Executive Committee and this year's conference program Co-Chairs, Natasha
> Jones and Blake Scott, take seriously the <u>NAACP travel advisory for
> Missouri</u> that advises people of color and other minorities traveling in the state to
> do so "with extreme CAUTION." After careful consideration, we have decided to
> hold the ATTW 2018 conference March 13-14 at the Reardon Convention Center
> in Kansas City, Kansas, which is approximately 3 miles from the CCCC site,
> directly across the river…ATTW celebrates 45 years as an organization this year,
> and we concluded that the right thing to do for our organization is to move the
> conference so that our most vulnerable members might feel safer.

Eble and Haas name the consequences of the NAACP travel advisory as safety for people of color and a loss of participation and scholarly contributions from those "vulnerable members" that will directly harm the "future of our field." In order to mitigate these risks and "[sustain] and [maintain] this vision and mission", this disciplinary organization had to *act*.

Conference co-chairs Natasha Jones and Blake Scott issued a joint statement that connects this disciplinary action to social justice:

> Because our [conference] call for inclusion and social justice must be

demonstrated through our material, economic, intellectual, and embodied actions, we, along with the ATTW executive committee, seek to show, through our embodied commitment, a solidarity with our members targeted by discrimination and oppression. As such, the decision to hold this year's ATTW conference at the Reardon Convention Center in Kansas City, Kansas, rather than in Missouri, is an enactment of our localized, social justice action.

Here, Jones and Scott connect the scholarly work of the discipline at the conference to "material, economic, intellectual, and embodied actions" that make that scholarly work possible. This, of course, is not the first instance of a disciplinary organization practicing social justice, nor will it be the last.

Conferences and organizations are not the only contexts that make scholarly work possible. Universities are the spaces where faculty do their work. The universities and institutions that support disciplinary knowledge making have served as settings for violence and resistance long before the sexual assault crimes and student and faculty protests at Michigan State University, the white supremacist riot at the University of Virginia in Charlottesville, the Vietnam protests at Kent State University, and the forced integration of the University of Alabama, and all the way back to the colonial founding of universities. Today, professors who support social justice efforts are routinely doxed while institutions lack protocols to provide support and protection. Thus, problems around disciplinary practice and involvement in social justice is not growing more intense as much as it is expanding in complexity.

Technical communication needs to continue to investigate and enact social justice as a disciplinary practice, as well as a theoretical concept because practioners and scholars are continually positioned as mediators between individuals, students, citizens, users, and publics,

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and technologies, communication processes, complex information, policies, and institutions. Thus, in this dissertation, I consider social justice as a set of research practices that cross methodologies, methods, and epistemologies as well as contexts (institutional, disciplinary, local, community), and actors (participants, stakeholders, communities). I articulate a framework that can be applied in research to increase inclusivity, and I explain how locating an emphasis on social justice design in addition to social justice research will contribute to equality.

In this chapter, I review technical communication scholarship around disciplinary activity and knowledge making. Although this area of scholarship is rich and reflexive, the field has been charged with lacking consensus on what methods to use (Cross, 2004; St. Amant & Meloncon, 2016) and why researchers use them (Campbell, 2000). Herndl and Nahrwold (2000) argue that by shifting views of research from categorization to practice as social action scholars can "interrogate the relationship between research practices and material realities of social, economic, and institutional power" (p. 263). Thus, I situate technical communication research as practice in order to illustrate how social justice research can support disciplinary activity and knowledge making. Using those discussions as a foundation, I share my research questions, purpose statement, data sources, and organization of this dissertation.

Disciplinarity, Knowledge Making, and Practice in Technical Communication

Technical communication has a continued dedication to investigating how the field makes knowledge (Kent, 2007; Palmer & Killingsworth, 2002), what research questions scholars ask (Rude, 2009), the state of current research in the field (Arasaratnam, 2014; Blakeslee & Spilka, 2004; Russell, 2009) and surveys of different approaches to research (Cotugno & Hoffman, 2011; Graham, Kim, DeVasto, & Keith, 2015; Read & Swarts, 2015; Sullivan & Martin, 2001). Knowledge making is critical to disciplinarity because disciplinary discourse

"provide[s] norms, stipulating the way research ought to be conducted" (Blyer, 2004, p. 147).

For example, when Rude (2009) mapped the research questions in technical communication, she connected the research activity to disciplinary identity: "the identity of any academic field is based in part on the research it conducts" (Rude, 2009, p. 175). Despite this importance of research activity and the affect it has on shaping identity, the field lacks consensus on what methods to use (Cross, 2004; St. Amant & Meloncon, 2016) and why researchers use them (Campbell, 2000). Frequently, technical communication researchers "borrows methods, theories, and even content areas with design communication, speech communication, and rhetoric and composition as well as with psychology, education, and computer science" (Rude, 2009, p. 175). Because disciplines "provide filters through which researchers see the world," researchers "cannot strip methods from knowledge-making practices" (Moore & Richards, 2018, n.p.). Then, if methods in the field are borrowed, then what are knowledge-making practices in technical communication?

Within technical communication, the term *practice[2]* is used to discuss applications of technical communication as a profession, not an area of study. Frequently, "technical communication is commonly defined as a practice, not as an area of research" (Rude, 2009, p. 175). Even when mapping the research questions of technical communication, Rude (2009) relegated the practice section to applied action, separate from both disciplinary questions and questions of social change.

Most recently, Moore and Richards (2018) have collapsed reconsidered practice as knowledge making by reintroducing the concept of praxis:

> technical communication at its best is a praxis-based activity where theoretical

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[2] See Table 1 for definitions

moves are solidified and evidenced, methodologies are made transparent and open

to messiness and change, and where we recognize that anytime we are doing

research we are doing theory and anytime we are doing theory we are engaging in

practice (n.p.).

They go on to identify "one locus of procedural or productive knowledge is research and the

actions/activities of research and our methodologies." Although McNealy, Spinnuzi, Teston,

(2015) argue that **"methodological approaches act as markers for disciplinary identity and

changes to practices and theories of technical communication,"** (p. 2) I do not go into detail here

on what Herndl and Nahrwold (2000) refers to as "research paradigms" (p. 263). Such

scholarship devoted to theoretical dialogues around positivist/post positivist methodologies and

modern/postmodern critiques of research has been well covered by multiple fields, including

technical communication.

     While I do speak to methodological and epistemological implications in my conclusions

chapter, I focus on research practices and actions like advocacy, and reciprocity that drive

research related to social justice research. Reviewing scholarship around social justice as practice

and actions allows me to "identify and explore the discrete activities, decisions, and

consequences of research instead of classiy[ing] and organiz[ing] research based on method,

paradigm, or methodology" (Herndl & Nahrwold, 2000, p. 263) Such classification alone limits

discussions of knowledge making practices and commitments (i.e. a researcher practices x

method because it is within the y methodology). Herndl and Nahrwold (2000) argue that by

shifting views of research to social action scholars can "interrogate the relationship between

research practices and material realities of social, economic, and institutional power"—of which

are the main focuses of my research as mentioned throughout this chapter (p. 263).

Sullivan and Porter (1997) refer to social actions as critical practices—that is:

> the actions researchers take and the responses of critique to research actions that
> they take as they come into contact with people (researchers and participants) and
> events (instigated by researchers, participants, society, and so on) inside an
> environment (and attitude) of self-reflective and critical inquiry (p. 68).

Narrowing the focus in this study from methodologies and methods to practices allows me to make visible the threads within technical communication that are dedicated to critical inquiry and self-reflection, across a variety of methodologies, methods, and epistemologies. While methodological studies have informed my research, this dissertation benefits more from focusing on practices that enable social justice research in order to consider how commitments to those actions result in knowledge-making.

Thus, if productive knowledge making and theories of a discipline are located and made transparent in research actions, then studying the actions (or practices) of technical communication scholars can contribute to disciplinarity. Additionally, if disciplines do not just make knowledge but also act through practices that have material, social, economic, and embodied consequences, then articulating knowledge-making practices connected to social justice can provide a framework for more inclusive disciplinary activity.

Social Justice in Technical Communication

Social justice[3] as a set of commitments and practices has many histories before and beyond its applied use in technical communication as research that "investigates how communication broadly defined can amplify the agency of oppressed people those who are

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[3] I acknowledge these histories and violence not create a dichotomy across social justice, or to identify one type as more or less real than the other, but instead to situate this research within a material reality.

materially, socially, politically, and/or economically under-resourced" (Jones & Walton, forthcoming). From the civil rights era, to Stonewall to the Black Lives Matter movement, to #nodapl, marginalized peoples and allies have sought liberation and equality from the structures that historically oppress them, and the state bodies that conduct violence against them, their children, languages, and cultures. As discussed in the NAACP travel advisory and the ATTW responses to it, when researchers study social justice, they acknowledge not just the intellectual work of scholars, citizens, and publics, but also the physical violence that marginalized populations have experienced in campaigns and every day resistance for equality (Scott, 2008). As Jones (2016) states, the work of technical communicators mediates human experiences and thus has a significant role in an individual's material oppression or equality.

Scholars have considered and reconsidered the role their research (from their subjects, to their findings) played in mediations of power and privilege on marginalized practioners, scholars, and populations. As Jones, Moore, and Walton (2016) traced in their article, six threads that serve as touchpoints for social justice include research related to

1. feminism and gender studies (Durack, 1997; Thompson, 2004; Koerber, 2000; Lay, 1991)

2. race and ethnicity (Banks, 2006; Haas, 2012; Williams, 2010; Williams & Pimentel, 2012)

3. international and intercultural professional communication (Ding & Savage, 2013; Sun, 2012; Matsuda & Atkinson, 2008)

4. community and public engagement (Simmons & Grabill, 2007; Eble & Gaillet, 2004; Moore & Elliot, 2016), user advocacy (Spinnuzi, 2005; Agboka, 2014; Dura, Singhal, & Elias, 2013)

5. disability and accessibility (Palmeri, 2006; Youngblood, 2013; Oswal &
   Meloncon, 2014).

These research areas serve as threads (some lesser acknowledged) in technical communication's identity—arguing for "the disciplinary pursuit of inclusion" and social justice as a core commitment in the field.

Jones, Moore, and Walton surveyed these threads to acknowledge the breadth of research in technical communication dedicated to inclusive practices and justice. Here, I want to focus in on areas from the community and public engagement threat that emphasizes active practices and serves as a historical foundation to social justice research in technical communication: critical action research. I chose this focus not because other movements in technical communication are irrelevant to social justice research, or less important. For this project, critical action research explicitly functions on the premise that research should be paired with socially justice knowledge-making practices, which lends itself to contemporary discussions of social justice that are framed with action in mind. Not that other research areas are not motivated by change, just that critical action research, like social justice research makes this motivation explicit.

Knowledge-making Practices as Action: Examples from Critical Action Research

Critical action research seeks "to support the inventional activities of the people with whom we [researchers] work" through reciprocal collaboration and facilitation by researchers (Blythe, Grabill, & Riley, 2008, p. 294). Although critical action research does not explicitly contain a definition of social justice in relation to research, this framework does offer socially just practice building from: 1) a reflective researcher position 2) a commitment to social change. Thus, critical action research reframes the context of research.

For example, Herndl and Nahrwold (2000) do not explicitly use the term *social* justice,

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nor do they reference marginalization explicitly in their article concerned with critical action. Instead, their concerns of research center more on problems with modernist ideologies that privilege objectivity in research projects. They argue that even if researchers operate within a personal paradigm of postmodernism, or research that values subjectivity and participant voices, institutions still privilege modernist projects.

The tension for researchers who attempt to work under a postmodern paradigm within institutions that privilege a modernist project risks what Herndl and Nahrwold (2000) call a "theoretical imperialism in which researchers impose a theoretical agenda on situations and participants, usurping their autonomy" (p. 279). To combat issues of imperialism and modernism, the authors argue for a resistance postmodern, which dictates "a position that accepts critiques of knowledge and power but is committed to social change" (p. 259). In addition to making knowledge, Herndl and Nahrwold (2000) considered research to "work to change social and institutional relations and identities and to alter the theory and practice of writing" (p. 268).

Blythe, Grabill, and Riley (2008) practiced what they called critical action research, which seeks social justice or "empowerment for the oppressed" (p. 274). As they argue in their case of environmental communication in the Harbor, the goal of action research "should be to identify and support the strategies used by community members rather than to educate the public" (p. 272). In order to meet their goal, they had to reconsider their role as researchers as well as their interactions with participant community members. In action research, the main role of researchers is as facilitators or consultants who support various stakeholder efforts. Key to facilitation is the resistance of using participants merely to "achieve their own ends" (p. 274). As part of their commitment to social justice, scholars make knowledge by promoting peoples' access to policy and decision-making mechanisms.

Critical action research with its dedication to reciprocity and intervening in across state and public stakeholders marked one set of research practices that explicitly sought justice on behalf of participant populations.

Knowledge-making Practices as Action: Examples from Social Justice Approaches

Action gets taken up by social justice researchers as a critical outcome of their work. Considerations of power, privilege, and positionality[4] (the 3Ps) are significant mitigating factors to researchers in technical communication as they seek equality, inclusivity, and increased agency for marginalized peoples. Thus, these scholars consistently identify social justice research as action and change based.

Within public and cultural turns[5] technical communication scholars have made room in their research to explicitly define social justice. For example, Godwin Agboka's (2013) articulation of social justice research as "an advocacy with those in our society who are economically, socially, politically and/or culturally under resourced" (p. 27) provided a methodological foundation for his research in with local communities in Ghana. Jones (2016) expands Agboka's definition of social justice to include "critical reflection and action that promotes agency for the marginalized and disempowered" so that questions of advocacy (for whom, to whom, and toward what end) hold researchers accountable for their practices.

Moore and Elliot (2016) situate social justice research as work that "can potentially redress inequities both in the academy and in the public sphere," which provides distinct purpose and context to the actions mentioned by Agboka and the reflection considered by Jones. The acknowledgement of inequalities within and without the academy encourages researchers beyond

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[4] Power, positionality, and privilege intersect see Jones, Moore, & Walton 2016
[5] 2000s to present

the metaphorical "ivory tower" to understand the relevance, or lack thereof, and consequences of their knowledge making to local communities or publics.

Colton and Holmes (2018) consider contemporary definitions of social justice like Agboka's (2013) within contexts of political theory. They argue that these definitions rely on political frameworks like liberalism or libertarianism that act on an implied passivity because equity is seen as something only granted by a state actor as something distributed. Instead, the authors define social justice as "any act that makes visible the equality of even one person whose voice has been suppressed and whose equality has been erased or ignored" (p. 13). In addition to passive acts of social justice, this definition, Colton and Holmes argue, illustrates that technical communicators can participate in active social justice, or "an act that verifies a person's equality without waiting for permissive social and political structures" (p. 12).

These applications of social justice, as foundational to my research, illustrate a critical aspect of social justice research, which is a dedication to taking up definitions and refining them as contexts of research change based on researcher and stakeholder power, positionality, and privilege. The definition of social justice that perhaps captures this shifting and contextualizing action the best is Jones, Moore, and Walton's (2016) award winning article that tracks movements in technical communication related to inclusion discussed above. In addition to that history, they articulated social justice as "research in technical communication that investigates how communication, broadly defined, can amplify the agency of oppressed peoples—those who are materially, socially, politically, and or economically underrsourced" (p. 9). Within this definition, concerns of advocacy, action, and context are accounted for under the realm of investigating when, where, how, why, and to what extent communication mediates the histories and lives of oppressed peoples. Research then can be generative in the sense that researchers

advocate for those paths that amplify the agency of oppressed peoples. Doing this investigative work, generating actionable change, and amplifying agency all require researchers to consider their own power, positionality, and privilege, as well as the stakeholders involved.

Statement of Purpose

This dissertation explores issues of inclusivity and knowledge-making in technical communication— especially as they manifest across research practices— by articulating a framework for social justice research. Social justice research asks its practitioners to incorporate practices of advocacy and reciprocity across the arcs of their processes, as they interact with stakeholders, institutions, and data, as they generate knowledge.

In order to do this work, the dissertation first surveys disciplinary activity in technical communication and enriches Jones' (2016) concerns of mediating technology and human experience to social justice commitments of inclusion, public action, and agency.

Next, this dissertation presents the practices of four scholars conducting social justice research to offer thematic data narratives. Scholars can enact social justice when they intentionally integrate principles of advocacy and reciprocity into their research. Advocacy occurs when researchers negotiate, accommodate and facilitate justice across research settings, throughout research processes, and with research partners. Reciprocity occurs when researchers structure opportunities to exchange knowledge, labor, and resources with participants and related peoples, communities, organizations, and nonprofits.

Building upon these disciplinary histories and the expertise of these interview participants, this dissertation puts social justice into action. The dissertation ends by showing that social justice research is not just a method for intervening in oppression but is an approach for

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inclusive design that can help to make for just and equitable technologies, communication processes and protocols, and classrooms.

Research Questions

In seeking to create a baseline of disciplinary activity, my research is grounded in these questions:

R1: What disciplinary activities in technical communication are related to social justice?

R2: What practices do researchers of technical communication use and what commitments do they have when they conduct research related to social justice?

R3: How do researchers in technical communication engage in more inclusive projects for public action?

R4: What can researchers in technical communication learn about doing more ethical, public facing research from social justice scholars?

R5: What is technical communication's role in social justice?

Data Sources

Because practices of technical communication are tacit, this dissertation not only reviews disciplinary activity, but also acknowledges and amplifies the voices of researchers practicing social justice. Data sources for this research include: scholarly articles as written artifacts from my participants, an archive of ATTW conference programs, and a survey and interviews I conducted with participants. I analyzed this data using critical digital humanities methods.

Organization of Dissertation

In Chapter 2 I articulate a critical digital methodology, drawing on an interdisciplinary social justice framework that includes theories from feminist critiques of Information Sciences,

Digital Humanities, and Science and Technology Studies, which requires me to recognize issues of power, positionality, and privilege for myself and my participants as I design, execute and share my research.

In Chapter 3 I identify advocacy as a component practice of social justice research. Researchers practice advocacy in social justice research when they intentionally enact, promote or facilitate justice across research settings, throughout research processes, and with research partners. After defining advocacy as a research practice, I provide thematic data stories from participants identifying practices of productive reflection and disruption, active responsibility, and accommodation and adaptability as examples of practicing advocacy in research.

In Chapter 4 I identify reciprocity as a component practice of social justice research. Researchers practice reciprocity in social justice research when they structure opportunities to exchange knowledge, labor, and resources with participants and related peoples, communities, organizations, and nonprofits. After defining reciprocity as a research practice, I provide thematic data stories from my participants, identifying practices of vulnerability, trust-borrowing, and multidirectional relations as examples of reciprocal practices.

In Chapter 5 I conclude that researchers who do work related to social justice intervene in oppression through research, their work as technical communication practioners, as teachers in classrooms and as citizens. I end with approaches for researchers in technical communication to practice social justice not just as an intervention but as design. I end by focusing on one approach, inclusive design, as a method to be used in research, industry, and teaching.

Definition of Key Terminology and Concepts

The table below offers definitions to key terms that are used in this dissertation.

Table 1. Definition of Key Terminology and Concepts

Key Term	Definition	Source
Advocacy	interventions, individual and institutional, in oppressive mediations that validate the equality of marginalized, disenfranchised, or underresourced peoples	Jones, 2016
Agency	"The possibility of a choice, a decision whose outcome is not given in advance"	Grosz, 2010, p. 152
Inclusivity	intentional valuing, privileging, and promoting of marginalized perspectives	Jones, Moore, & Walton, 2016
Oppression	system-wide constraints and barriers (e.g. violence, exploitation, marginalization, powerlessness, and cultural imperialism) that limit the freedom of a group of people	Young, 2004
Power	privilege distributed unequally across positionalities by "systems, plans of action, narratives, and designs created by institutions to influence, guide, and at worst manipulate human society"	Kimball, 2006, p. 71
Privilege	"positionality that confers unearned advantages"	Jones, Moore, & Walton, 2016, p. 12
Reciprocity	multidirectional exchanges of knowledge, labor, and resources that can be positive (e.g. gratitude, acknowledgement) and negative (e.g. obligation, coercion, compulsion) depending on issues of power	Cushman, 1996; Powell & Takayoshi, 2003; Schmidtz, 2006
Research commitment	positions or a set of beliefs and obligations that shape how individuals act as researchers	Grabill, 2012
Research practice	forms of data collection, analysis, and interpretation that researchers plan and perform in their studies	Creswell, 2014
Social justice	research that contributes to the agency, equality, and inclusion of marginalized or under resourced peoples through active (e.g. local, personal) or passive (e.g. state bodies, institutions) channels	Agboka, 2014; Jones, Moore, & Walton, 2016; Colton & Holmes, 2018

Conclusion

At the 2018 ATTW conference, some members gathered in Kansas City, Kansas, while others engaged by watching live stream video, following the conference hashtag on Twitter, or

video conferencing in to sessions. This study contributes to the case that technical communication can and does engage with issues of social justice. More significantly, this study contributes a set of practices for how technical communication researchers can engage with social justice. Researchers who do work related to social justice do not necessarily study social justice as a phenomenon, instead they practice social justice through research by amplifying agency through their research, their work.

CHAPTER 2: METHODOLOGY AND METHODS

The purpose of this study was to identify practices related to research and social justice from scholars in technical communication. This study builds on previous studies conducted to explore how technical communication makes knowledge (Kent, 2007; Palmer & Killingsworth, 2002), what research questions technical communication asks (Rude, 2009), the state of knowledge in the field (Arasaratnam, 2014; Blakeslee & Spilka, 2004; Russell, 2009), and surveys of different approaches to research (Cotugno & Hoffman, 2011; Graham, Kim, DeVasto, & Keith, 2015; Read & Swarts, 2015; Sullivan & Martin, 2001). This scholarship was useful in designing a study to survey activity in the field, or what Mueller (2018) calls a *disciplinography*. In this chapter, I ground my methodology and methods in theories of social justice. With these theoretical commitments as my foundation, I discuss the significance of visualizing disciplinary activity. Next, I supplement methods of visualization with critical digital humanities approaches that complicate traditional logics. Following this, I move into describing the study's research questions, design, site, participants, and the methods of data collection and analysis and present examples from my own critical computational research.

Theoretical Framework

I understand this study within a social justice framework, which challenges interlocking systems of power by unraveling and reweaving "movements, voices, and disciplinary efforts that enable scholars to build a more inclusive technical communication" (Jones, Moore, & Walton, 2016, p. 4). Specifically, intersecting and interrelating theories like critical race theory, feminist theory, and participatory action research provide multiple points of entry to "examine the design and dissemination of communication critically with a focus on understanding how oppressive conditions can be rearticulated and reinforced" (Jones, 2016, p. 346).

Critical race theory studies how race as a socially constructed phenomenon affects reality through various contexts (social, political, economic, and material). Scholars in technical communication have applied critical race theory to investigate how race (and racism) influences pedagogy (Haas, 2012), practice (Williams and Pimentel, 2012), and research (Jones, 2016). The benefits of critical race theory are that it "helps us [technical communicators] to understand that all writing is subjective and influenced by our race as well as other intersecting identities, such as ethnicity, nationality, class, gender, generation, sexuality, ability and disability, and religion and spirituality" (Haas, 2012).

Feminist theory has a significant, though fragmented, history in the development of inclusive technical communication research (Frost, 2016). Feminist theories and approaches are recognized by the following components:

> celebration of difference, theory activating social change, acknowledgement of scholars' background and values, inclusion of women's experiences, study of gaps and silences in traditional scholarship, and new sources of knowledge (Lay, 1991).

These approaches create opportunities for researchers to investigate concerns of gender equality as a mediating influence in technical communication, with specific goals of "liberation from sexist role patterns, domination, and oppression" (hooks, 1981, p. 195).

In addition to these theories, social justice also draws on research frameworks like participatory action research to shift power during research processes. Although there are prerequisites to successful participatory research that I discuss more in depth in Chapter 4, this framework includes

> active participation of researchers and participants in the co-construction of

knowledge, the promotion of self- and critical awareness that leads to individual,

collective, and/or social change; and the building of alliances between researchers

and participants in planning, implementation, and dissemination of the research

process (McIntyre, 2007).

Participatory action research asks researchers to move beyond a cooperative relationship with

participants.

A social justice framework includes many interdisciplinary approaches that "highlight

key themes related to the concepts of power and legitimacy in TPC. These overarching themes

include concepts of agency and empowerment, notions of voice and silence, and dialogue and

praxis" (Jones, Moore, and Walton, 2016, p. 356). The polyvocal commitments of social justice

not only work to value the experiences of others, but also further legitimize researcher credibility

(p. 356). Social justice not only serves as a methodological frame for this study, but it also guides

my research questions, data collection and analysis.

When Jones, Moore, and Walton (2016) question technical communication's "pragmatic

identity" (p. 3-4) they employed an antenarrative approach to "interrogate the dominant narrative

that weaves an orderly, completed tapestry of the field and then present a collection of

nondominant stories, an antenarrative threads with the power to unravel aspects of the field's

tidy tapestry" (p. 3-4). Accounting for researcher power, positionality, and privilege in research

design is a common practice in social justice research. I supplement Jones, Moore, and Walton's

(2016) unraveling and reweaving approach with data visualizations and researcher interviews in

order to acknowledge research in technical communication related to social justice that might be

ignored, overlooked, or missed for issues like implicity, passivity, and more. Similarly, I reframe

existing methods that structure visualizations, like computational analysis, with critical

approaches and theories of social justice, to "[allow] the work of the field to be reseen and [forge] new paths forward" (p. 4).

Reseeing Disciplinary Activity with Data Visualizations

Identifying research practices necessitates a contextualizing survey of disciplinary activity. Derek Mueller's *Network Sense: Methods for Visualizing a Discipline* (2018) articulates a methodology that unites quantitative data mined from "pattern-amplifying devices" like journal articles, conference proceedings, syllabi, and more with DH methods like distant reading[6] and thin description[7] to create "incomplete but nevertheless vital glimpses of an interconnected disciplinary domain focused on relationships that define and cohere widespread scholarly activity" (p.xii). These vital glimpses come in the form of visualized patterns—like word clouds, citation frequency graphs, and maps of scholarly activity—generated by databases and computational software (like Tableau) and platforms (like Google Charts).

Using visualizations in a network sense distinguishes visualization as a methodology from visualization as results. Similar to Sullivan and Porter's (1997) mapping as a methodological heuristic and "theorizing technique," Mueller (2018) argues:

> The visual models are not proofs, finally, but provocations; not closures, but openings; not conclusions or satisfying reductions, but clearings for rethinking disciplinary formations—they stand as invitations to invention, to wonder, as catalysts for what Ulmer described as "theoretical curiosity" (p. xii).

Instead of only using hyperlocalized accounts like ethnographies and case studies to get a baseline of "complex, distributed disciplinary activity," (p. 8) visualizations take complexity and

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[6] Deliberately altering scale of data analysis to locate patterns (Moretti, 2013)
[7] The abstracting of data (Mueller, 2018) as opposed to thick description

"[hold] the text at bay so that we might see it instead as a semantic network with concentrations of terms coalescing throughout it" (p. 8). Thus, visualizations provide "thinned out" (p. 8) or simpler patterns that compel researchers to ask, "What next?"

However, visual representations that simplify data also have the potential to dehumanize subjects. Before the proliferation of complex and interactive data visualizations, Dragga and Voss (2001) reviewed the "inhumanity of technical illustration" by examining bar and line graphs, drawn diagrams, and pie graphs. Because these visuals represented death from events like logging accidents, mattress fires, and baby walkers, they argued that the significance of these deaths appears "ordinary…facts like all other facts" (p. 269). By simplifying human deaths into data points, the visualizations became inhumane cruel pies.

As visualizations become exceedingly intricate and complex Dragga and Voss's (2001) call to "promote a humanized and humanizing understanding of technical subjects" (p. 272) remains applicable. Because visualizations work through abstraction and simplification to present seemingly neat representations of phenomenon, visualizations can, as they do in their long history[8], enact violence by "reducing persons to objects, and stories to names" (Klein, 2013, p. 678). Indeed, scholars in Critical Digital Humanities (DH) note tensions between "[data maps] that offer us no orientation whatsoever within the social totality. Worse, they exacerbate the problem by veiling it behind candy-colored lines and nodes" (Galloway, 2011, p. 99).

Reseeing Computational Logics through Critical Computations

Computational rhetoric[9] has turned to DH methods to consider how scholars can "examine thousands or millions of texts at a time" and "take advantage of this emergent

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[8] See McPhearson, 2012; Fiomoronte, 2012

[9]

capacity" (Ridolfo and Hart-Davidson, 2015, p. 2). Such methods also have applications for technical communication since both technical communication and DH have "long-running ties to digital technology as both object and medium of inquiry." (p. 2). Below, I discuss critical computations as a DH method that can humanize data visualizations.

Critical computations from DH scholarship are "not only about shifting the focus of projects so that they feature marginalized communities more prominently; it [critical DH] is about ripping apart and rebuilding the machinery of the archive and database so that it does not reproduce the logic that got us here in the first place" (Posner, 2016, n.p.). The machinery that Posner refers to here is the technological and computational work with data sets, archives, corpus, and other data representations, in which there are always issues of power, privilege, and oppression to be discussed (Sano Franchini, 2016). For example, in initial phases of computational data collection processes, researchers manipulate or "clean" data by categorizing, collapsing, and modifying subjects in order to make information systems process data more efficiently. However,

> the cleaning paradigm assumes an underlying, 'correct' order. However tidy values may
> look grouped into rows or columns or neatly-delimited records, this tidiness privileges the
> structure of a container rather than the data inside it (Rawson & Muñoz, 2016, n.p.).

Instead, critical DH suggests methods like open database design which make those categorizing and collapsing processes transparent and also editable.

When conducting research that is concerned with the state of knowledge in technical communication, researchers frequently quantify data[10] and apply computational analysis to study varied practices of the field– through professional journals (Boetteger & Lam, 2013; Thompson,

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[10] Scholars in rhetoric and composition also have a rich history of this computational work. See Mueller, 2012; Miller, 2014; Gatta, 2014.

2001), dissertation records (Selber, 2004; Rainey, 1999), and job postings (Lauer & Brumberger, 2016; Brumberger & Lauer, 2015). Although Boetteger and Palmer (2010) argue that such methods are "more powerful" than surveys and interviews because quantitative methods "lack reliance on subjective perceptions" (p. 346), Walter and Anderson (2013) reiterate that "quantitative data play a powerful role in constituting reality through their underpinning methodologies by virtue of the social, cultural, and racial terrain in which they are conceived, collected, analyzed, and interpreted" (n.p.). In other words, computational data may not rely on the subjective perceptions of research participants, but instead relies on the subjective perceptions of researchers, their instruments, and their corpus. When these subjective positions, or what Jones, Moore, and Walton (2016) call *positionality,* are unacknowledged in research design[11], such methods have the potential to reinscribe systems of oppression.

This is not to say that computational methods do not have a place in social justice research[12]. Instead, to design and conduct research that accounts for my positionality and humanizes technical subjects, I incorporated methods from Critical Digital Humanities[13] like open database design to 1) reframe computational research as a critical endeavor that is subjective and exploratory and 2) consider visualizations of computational data as generative points of invention, rather than concretized results of a static reality.

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[11] The distinction here between research design and data analysis is important. Quantitative methods like content analysis incorporate procedures like interrater reliability in the analysis of data to prove reliability of results. However, such measures are not incorporated during the design of research questions, selection of corpus, and raters, all of which have consequences.

[12] Indeed, qualitative research methods like ethnography have colonial roots (Smith, 2002) that need to be redressed in methodology sections.

[13] By applying DH methods, I also respond to calls made on scholars in technical communication and in rhetoric and composition to consider theoretical connections to visually representing quantified data. See Hart-Davidson and Ridolfo, 2016.

Research Design

I designed this study to identify researcher practices and commitments related to social justice. As discussed in chapter 1, although researcher practices are shaped by personal identities and experiences and methodologies, practices also are shaped in and as knowledge work within the discipline. Thus, I designed and implemented this study in two stages—first a baseline of disciplinary activity with visualizations and second researcher interviews to contextualize disciplinary activity. I piloted the research design with one participant in 2015. The study design has since been modified to include an initial survey, limited interviews, and three cycle coding.

Table 2. Methods for data collection and analysis

Data collection method	Tool	Data	Data analysis method	Tool(s)	Product
archive	Listserv	Corpus of ATTW programs 1998-2016	Open database construction member collaboration	Google sheets AntConc	Participant list, themes
			Data visualization	OpenRefine Tableau	visual models
Survey	Typeform	20 questions	Process coding	Typeform report	Follow up interview questions
Semi-structured interviews	FaceTime, Skype, Screen recording	338 minutes	Transcription participant review triangulating with visual models	GoTranscription Google docs	102 single spaced pages, thematic narratives

Research Questions

As I introduced in Chapter 1, my research questions seek to create a baseline of disciplinary activity related to social justice. The methodology and methods of this study were

designed with these questions in mind:

R1: What disciplinary activities in technical communication are related to social justice?

R2: What practices do researchers of technical communication use and what commitments do they have when they conduct research related to social justice?

R3: How do researchers in technical communication engage in more inclusive projects for public action?

R4: What can researchers in technical communication learn about doing more ethical, public facing research from social justice scholars?

R5: What is technical communication's role in social justice?

An Academic Conference as a Site of Research

To survey disciplinary activity in technical communication, I selected an academic conference *The Association of Teachers of Technical Writing Conference* (ATTWcon) as both a research site and a point of entry to select participants. As mentioned above, scholars frequently turn to academic journals, books, and course materials to survey various states of the field at given moments in time. Although Janice Lauer (1984) refers to academic journals, not conferences, as an "epistemic court," or locations that "circulate disciplinary knowledge, attracts attentions, and gains status," (p. 24). ATTW, a disciplinary organization formed in 1973, articulates their purpose to "encourage dialogue among teachers of technical communication, develop technical communication as an academic discipline" (n.p.). ATTW develops technical communication as an academic discipline through the peer reviewed journal Technical Communication Quarterly, as well as through annual academic conferences (ATTWcon). Today, ATTW has approximately 1,000 members across universities and industry.

I chose to review ATTWcon instead of journals for a few reasons. The work presented at

ATTW is, at least assumed, to be more current than research from journal publications, which have a lag in publication time. Work related to social justice in technical communication is often linked to social justice movements, which spring into action suddenly and with a rhetorical volatility, reviewing programs gives me an opportunity to see what kinds of social justice work has happened in each year. This kairotic context provides opportunities to investigate the material realities that effect academic research.

Additionally, I selected ATTWcon in order to include research and works in progress that might be excluded from journals based on claims of lack of rigor or fit. ATTWcon welcomes a larger number of presenters (as opposed to authors in journals) each year. For example, in 2016, ATTWcon featured over 115 presentations, and over 20 posters while its sister publication Technical Communication Quarterly published 20 articles. While reviewing the 20 journal articles would provide me with a partial picture of research in the field each year, the amount of work presented at ATTW allows me to observe nuance, in addition to breadth. Although ATTWcon does have a peer view process that has a 32% acceptance rate, they welcome presentations, posters, and workshops where presenters can share research at various stages of completion from faculty, staff, students, and industry professionals. Although there are no journal guidelines that stipulate exclusion of these groups, frequently the publication process is arduous for students learning disciplinary content and genre conventions, and overly time consuming for working professionals who have day jobs. Students and professionals are critical voices in the field and have important perspectives to offer for technical communication.

Finally, ATTW has frequently and openly invited work directly related to social justice. In 2016 the conference theme was citizenship and advocacy, in 2018 precarity and politics. I wanted to see if this theme allowed space for social justice work and how that work was situated

in the rest of ATTW's history and future. Although these programs only offer a partial view of technical communication research, they provide valuable information in regard to participation, the presence of social justice work, the places of social justice work.

Participating at the Site and Researcher's Role

My involvement with ATTW began in the fall of 2014 when I registered as a member and submitted a proposal to the 2015 conference. By the time my data collection for this study began in summer 2016, I had participated in both organizational and conference events and would continue to do so throughout my data collection and analysis processes. I have presented at the 2015 and 2016 conferences; served as a social media team member for the conference in 2017; attended methods workshops at the conference in 2016 and 2017; attended Women in TechComm luncheons in 2015, 2016, and 2017; and finally attended a career workshop in 2017. This involvement, of course, impacted my position as a researcher and participant. My participation at this research site alternated "between practical work to support changes (such as design activities) on one hand, and systematic data collection and analysis on the other hand" (Spinnuzi, 2005, p. 164).

While participation at these events provided me with access to tacit knowledge that frequently is invisible in textual disciplinary activity, I also faced challenges. My positionality as a researcher in this project is complex—my participants are colleagues from different universities, whose work I am familiar with. Because this field is not enormous, I am able to track academic lineages and see the relationships between myself and my participants. In this sense, I interact with my participants as an insider—in interviews we might tangentially talk about a mutual friend, or realize we have some other connection. In those moments, however, I felt the weight of a researcher-participant relationship the most, specifically the risk of

researching researchers in a moderately sized field, and in a sub area of a few scholars. At these moments I recognized my position as an outsider—a research with the responsibility to decrease the risk of harm to my participants. As I will discuss later in my data collection and analysis sections, by participating at the conference in this way, I was able to solicit participants for interviews, structure collaborations, and engage in sustained, multidirectional reflection that are necessary criteria for participatory research (Spinnuzi, 2005).

Participant Selection

I generated a list of potential participants from an archive of ATTW programs between 2006 and 2016. I included potential participants based on the presence of following criteria:

1. Participants presented at ATTW between 2006-2016

2. Participants self-identified the subject of their presentation/workshop/poster as social justice

3. Participants presentation/workshop/poster contained of any of the following components: marginalized or underrsourced populations (Agboka, 2014), public action (Jones, 2016), and agency (Moore and Richards, 2018).

From this list, I conducted a purposive sample (Creswell, 2014) across institutional rank (emeritus, full professor, associate professor, assistant professor, lecturer, and student) in order to acknowledge contextual realities (e.g. labor, risk, hierarchy) and increase inclusivity. I solicited participation from five individuals. Four individuals accepted, and one declined.

Participants

Technical communication scholars who conduct research related to social justice are a small, but diverse group, who vary in experience and practice. Among those scholars, I was able to speak with four people through semi-structured interviews. My participants were

demographically diverse, self-identifying as: female, male, Ghanian, Latinx, white, international, and queer; a professor emeritus, an associate professor, an assistant professor under tenure review, and a first-year assistant professor. All participants conduct or have conducted research they self-describe as social justice. Their research sites vary, including nonprofit offices, national institutions, classrooms, and communities in the Global South. Most participants employ qualitative methods, although some use statistical tools like SPSS.

Because technical communication scholars who do work related to social justice are a small, but highly visible group, I have chosen to protect their identity by summarizing their identifying information in the table below. David is an Associate Professor and a researcher who considers the purpose of his scholarship to draw attention to work ignored by the field. Jessica, an then Assistant Professor and now recently tenured Associate Professor, says she wants social justice research to take action in the world to eradicate oppression. Sarah was a then-first-year Assistant Professor and self-identified social justice researcher whose purpose is to make space for her communities. Finally, Vincent is a Professor Emeritus and studies organizational and professional contexts for social justice.

Table 3. Overview of participants

Demographic identifiers	Rank	Methods	Methodologies	Research sites
African, cisgender, female, Latinx, International, Male, Multilingual, queer, white	assistant professor, assistant professor, associate professor, Professor emeritus	case studies, document/record review, focus groups, government databases, interviews, observations, surveys, statistical, Questionnaires, visual methods	Indigenous, collaborative, community-based, decolonial, feminist	academic programs, classrooms, local communities in Global South, nonprofits, workplaces

Data Collection

Data collection for this study began in the summer of 2016 when I received IRB approval and concluded in the spring of 2017. To establish the credibility[14] of this study, I applied strategies Shenton (2004) suggested, which include triangulating my data collection and analysis across three different data set, using iterative questions in semistructured interviews, and using member checks to ensure the accuracy of database, visualizations, transcriptions and interpretations.

Archive.

I solicited the ATTW listserv in order to gather ATTW programs between 2006-2016. Lisa Meloncon contacted me and shared her archive via Dropbox, which contained programs from 1998-2016 in nineteen separate files, 16 pdfs and 3 word document files. Some years, like 2015, had multiple files because the program cover was separated from the program contents. The files for 1998 and 1999's conferences were corrupted and could not be accessed.

Survey.

Using Typeform, I designed and distributed a 19 question survey that asked participants closed and open ended questions about their research designs, methods, and tools. I applied Creswell's (2014) approach for a broad survey followed by "a second phase, focuses on qualitative, open-ended interviews to collect detailed views from participants to help explain the initial quantitative survey" (p. 48). Questions from the survey are located in the Appendix B.

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[14] See Lincoln, 1995 for a discussion of credibility in qualitative research from extrinsic data, which can loosely parallel internal validity, external validity, reliability, and objectivity in quantitative research

Interviews.

Participant responses from the survey were used to develop questions in the follow-up, semi-structured interviews. I interviewed two participants in person, and two participants I interviewed digitally via Google Hangout and Skype. These interviews lasted around 75 minutes and followed a procedure (see Appendix C) that was "unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from participants" (Creswell, 2014, p. 239).

Immediately after interviews were completed, I sent the audio files to a professional transcription service. When I received the transcribed files, I reread them while listening to the audio files to correct any mistakes in spelling (e.g. names, discipline-specific acronyms) and misidentified speakers. I then shared the transcribed interviews with my participants via Google docs for any further clarifications, additions, modifications or deletions. Because "transcripts are not facsimiles of a particular reality, but rather interpretive structures" (Mero-Jaffe, 2009, p. 235), engaging my participants in this process preserved "individual wellbeing, freedom of consent, choice, and the principle of justice, decency, and equality" (Mero-Jaffe, 2009, p. 235).

Data Analysis

As suggested by Mueller (2018), I analyzed participant narratives and "data-based accounts" in conjunction with each other. The analysis process was iterative, following Srivastava and Hopwood's (2009) approach that analytical iteration is "not as a repetitive mechanical task but as a deeply reflexive process, key to sparking insight and developing meaning" (p. 76). I created an open database, and presented my coding, database, and visualizations to members of the field at ATTW. Throughout this iterative process, I triangulated my analysis across three different forms of data.

Coding: Database and interviews.

Using the ATTW archive, I constructed a database in the form of a Google spreadsheet. Lev Manovich (2007) defines a database as **"**a structured collection of data. The data stored in a database are organized for fast search and retrieval by a computer and therefore a database is anything but a simple collection of items" (p. 39). As I mentioned when discussing critical computations, the structures frequently privilege computer systems more than data by requiring specific logics. However, Hayles (2007) argues that there are opportunities to expand database structures: "the great strength of database, of course, is the ability to order vast data arrays and make them available for different kinds of queries" (p. 1604). By iteratively designing and redesigning a database, structures give way to relations or what Mueller (2018) calls "media objects [that] pluralize monolithic logics for expression" (p. 51). I presented my database and coding scheme to members of ATTW at the 2017 conference in Portland, OR. I shared these methods in my presentation, as well as a link to the Google Sheets so that members 1) could see in detail the logics that structure the database and 2) so ATTW members could continue to use the database for themselves. Members responded positively to the database construction.

With flexibility and relations in mind, I created this database and coded interview transcripts following Saldaña's (2009) three cycle coding process for qualitative data (see table 3 below). For the database, the first cycle included creating records using metadata like the names of panels, presentations, institutions, presenters, and years (see figure 2 below). Johnson (2016) says that factor mapping with this kind of meta data is important because "even during a time that has witnessed an upsurge in globalized communication practices, place matters" (p. 103). At the same time, I read interview transcripts and studied the conference holistically in order to better understand the context at large. Indeed, these factors of temporality, spatiality, and

geography are ways to create visualizations to better understand factors of influence within

existing.

In the second cycle, I completed a closer reading of transcripts and used AntConc, a

corpus analysis software. For both for the database and transcripts, I performed process coding,

Table 4. Coding Cycle Interviews

Record	Cycle 1: Descriptive coding	Cycle 2: Process Coding	Cycle 3: D-units	Description of cycle 3 codes
"Building for Action: Designing a Useful Heuristic for Mobile Civic Engagement"	presenter name affiliation year	building designing	action	Processes and activities focus on civic or public facing outcomes
"Technical 'Spanglish'? addressing the documentatio n and training needs of Hispanic construction workers"	presenter name affiliation year	addressing, training	inclusion	Processes and activities focus on marginalized experiences
"Sites of Translation: Advocating for the Complex Rhetorical Work of Translation in a Latin@ Community"	presenter name affiliation year	advocating	agency	Processes and activities focus on actions of human and nonhuman agents

which identified gerunds (-ing words) to represent actions and practices in a data segment

(Saldaña, 2009). Using AntConc's concordance function (Figure 3), not only could I quickly

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browse gerunds highlighted in blue, but I could also contextualize the action or practice they

	A	B	C	D	E	F
1	1	Panel title	Presentation Title	Year	Description	Affiliation
2	2	User Experience, Value, and Technical Communicati	Usability and Value Proposition Design: Exploring the Nexus between Usa	2015	Panel	Michigan Techno
3	3	Attention to Language and its Value in technical com	Army Flash! Narrating a Civil Defense Procedure	2015	Panel	Missouri Westeri
4	4	Headlines in Technical Communication	Sarbanes Oxley: The Technical Communicator's Role in Compliance Docu	2007	Panel	Missouri Westeri
5	5	Learning Difference, Unhinging Privilege: Curriculum	Rage Against the System: Dismantling Privilege in an Appalachian Classr	2016	Panel	Marshall Univers
6	6	Connecting internationally: Othering ourselves, locali	Localizing through contigency: Intercultural negotiation and experimentatic	2008	Panel	Illinois State Uni
7	7	Dissecting the "Global" and "Culture"	Globalization and Social Justice: Interrogating the International in Internati	2012	Panel	University of Hou
8	8	Enacting Social Justice, Finding Value in Technical C	Enacting Social Justice, Finding Value in Technical Communication	2015	Roundtable	University of Hou
9	9	Global Networks of Technical Communication	Participatory Localization: A Social Justice Imperative in International Tech	2011	Panel	University of Hou
10	10	Methodologies	Enacting Decolonial Methods: Emerging Social Justice Issues in Intercultu	2013	Panel	University of Hou
11	11	Social Justice and Technical Communication	Social Justice Curricula & Pedagogy: Preparing Technical Communicators	2016	Panel	University of Hou
12	12	XML & content management systems	Rhetorical theory building for "context-less" writing	2006	Panel	Purdue Universit
13	13	Teamwork in Technical Communication	Networks in Service-Learning and Team Projects: How Student Teams Pe	2011	Panel	Baylor University
14	14	Practical, Social, and Productive: A Workshop on Inti	Practical, Social, and Productive: A Workshop on Integrating Theory Effec	2010	Workshop	Eastern Michigai
15	15	In the classroom, in the field, and outside the mosqu	Communication Across Boundaries: Examining One Company's Annual G	2015	Panel	Texas A&M Univ
16	16	Identities, high reliability organizations, and intellectu	Institutional knowledge, institutional text: An analysis of how 14 academic	2008	Panel	Indiana Universit
17	17	Identities, high reliability organizations, and intellectu	Transferring management knowledge: Katrina and the lessons of the high	2008	Panel	Indiana Universit
18	18	Making Sense of "Our Place" in the Technical and Bu	Making Sense of "Our Place" in the Technical and Business Writing Classi	2013	Panel	Indiana Universit
19	19	New Perspectives in Risk Communication	New Perspectives in Risk Communication	2011	Panel	Indiana Universit
20	20	Research Informing the Teaching of Disciplinary Writ	Calibrated Peer Assessment for an Online Student Research Journal	2010	Panel	Indiana Universit
21	21	Popular science public media	Game theory and mixed reality learning environments	2006	Panel	University of Cer

Figure 1. Records in the database were first created based on their attributes

were performing. I used the concordance function as well as the Clusters/N-Grams function

(Figure 2), which presented me with a grouped list of gerunds, as well as their frequency, rank,

and range throughout the corpus. During this process I moved between lists from the database

and the interviews. This list of gerunds provided me with the basis for my third cycle coding.

The third cycle of coding expanded the database from initial records of metadata, process

codes, and transcripts to rhetorically rich discourse units (d-units) (Colomb & Williams, 1985).

Professional prose, like conference programs and research, are composed of "local universes of

tacit conventions and understandings that govern what counts as acceptable style, acceptable

terminology, acceptable argument, and acceptable form" (Colomb & Williams, 1985, p. 89).

Because these local universes include not just genre and style, but social and rhetorical

situations, reader and writer intentions, and complex networks of constructed meaning, Colomb

and Williams (1985) suggest coding professional prose into d-units, or

any stretch of continuous text—a whole text, a section, a paragraph, even a small group

of related sentences—that functions as a unit and whose parts are more related to each

other than to those outside the d-unit (p. 102).

These rhetorically rich units bring scattered topic or lexical codes together by acknowledging

"layered experience, with multiple strata contributing to the experience of coherent text

structure" (p. 104). In Table 3, I provide a selected sample of d-unit codes and their descriptors.
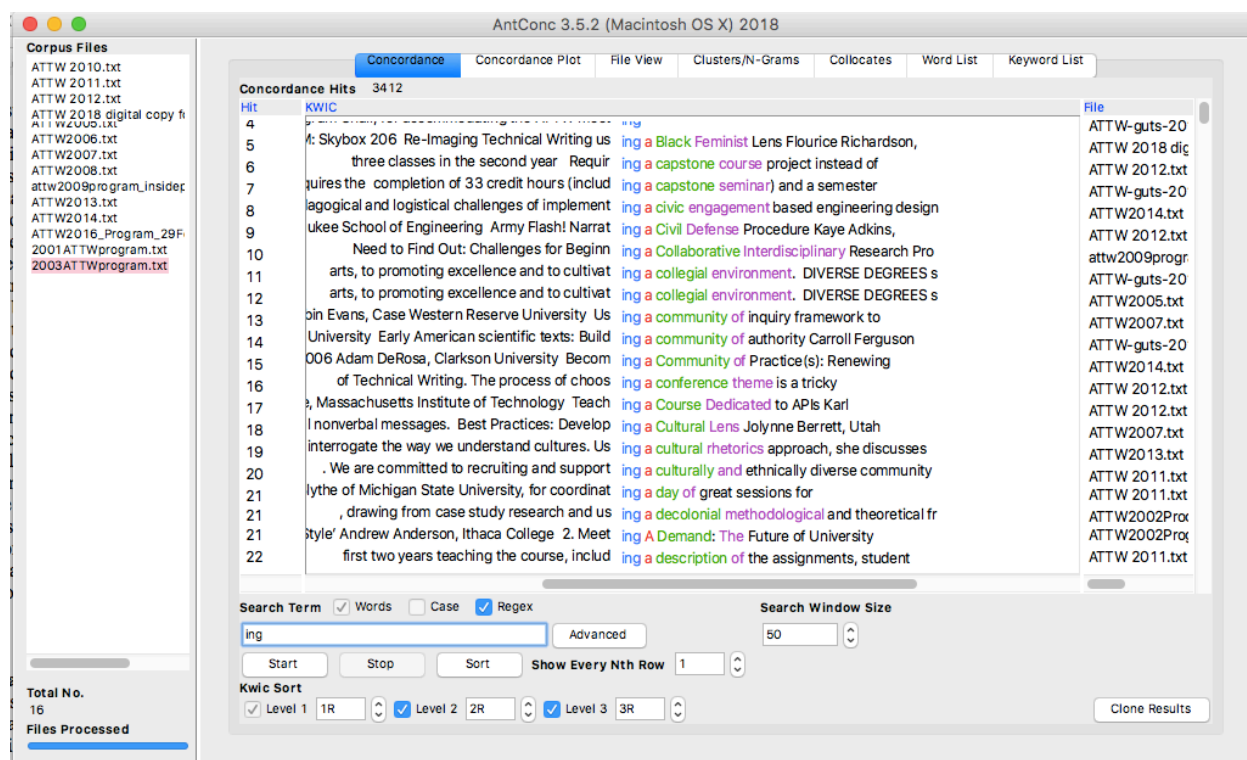
Figure 2. AntConc's concordance function allows users to search an entire corpus for a word form, then presents the results of the search in the form of a word tree with proximal words visible
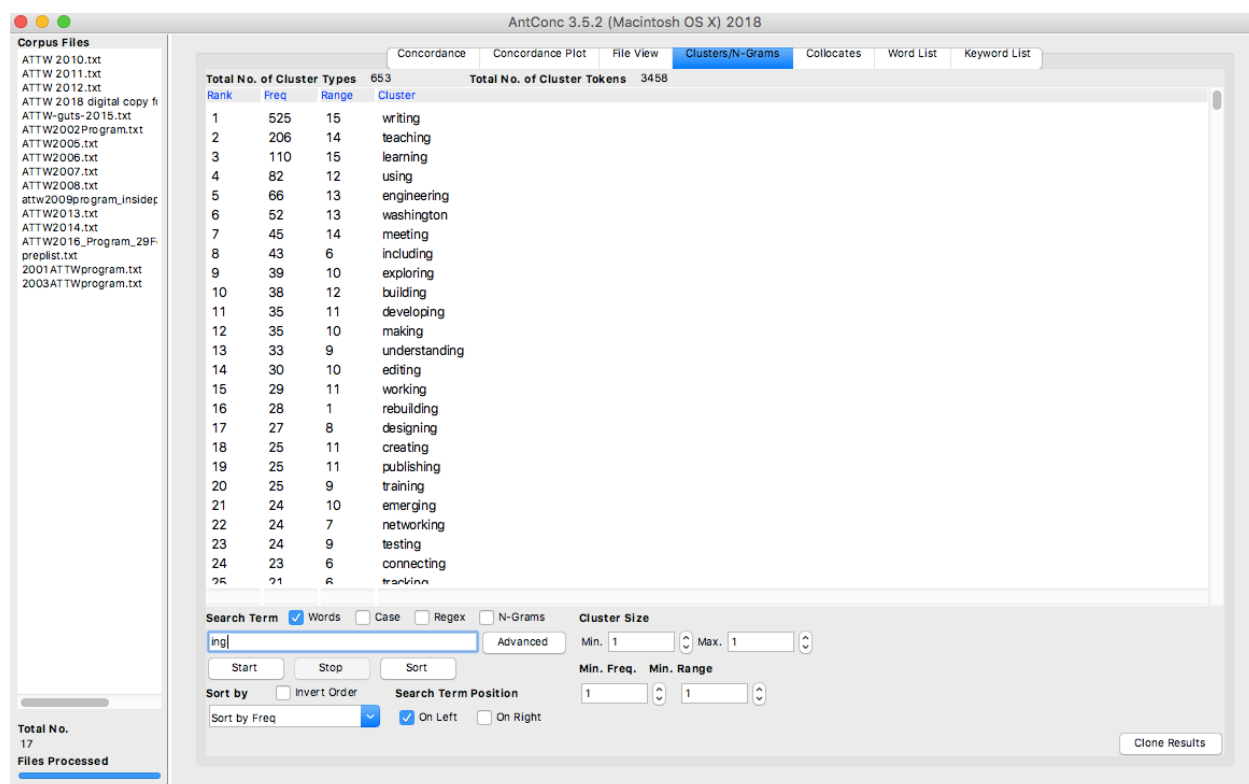
Figure 3. AntConc's Clusters/N-Grams function presents corpus search results in groups to illustrate frequency of occurrence, rank, and range within the corpus

Visualization.

Although my coding cycles were complete, to create data visualizations using programs like D3.js and Tableau, I had to manipulate or reformat the database based on program's requirements for date formats (dd/mm/yy), location information (geocoordinates or zipcodes), relations across records (edges and nodes, or sources, interactions, targets), and more. These data visualizations were not isolated or static renderings, but interactive and exploratory media that I visited and revisited frequently as an analytical dashboard of sorts. What these visualizations helped me explore were the themes of technical communication research as they incorporate social justice practices.

What these data visualizations do not show are the importance of social justice, the scope, application, sentiment, and reception of social justice scholarship within the field. These

visualizations simply affirm presence—which is why I designed my study in two parts 1) to use this data visualization as a methodological heuristic for invention and 2) to use qualitative interviews to enrich these patterns. However, these visualizations were nevertheless useful as a heuristic "for noticing connections among programs and people, publications and conferences, activities and their material castings, difficult questions and myriad stakeholders" (Mueller, 2018).

I generated three interactive data visualizations that worked together as an analytical dashboard (see Figure x below).

1. The frequency of presentations with social justice themes at ATTWcon from 2006-2016

2. The combinations of different themes of social justice presented from 2006-2016

3. The density of social justice themes across academic institutions

After reviewing my data sets, my codes, and my data visualizations, I identified three themes to consider for practices and commitments to social justice.

- inclusion: processes and actives that value and/or acknowledge experiences of peoples across racial, national, ethnic, cultural, queered, gendered, dis/abled identities

- public action: processes and activities that facilitate change along civic and public realms toward a democratic outcome

- agency: processes and activities that define problems/generate solutions based on consequences of communicative and/or technological meditations

Heatmap shows themes: action (orange), agency (red), and inclusion (yellow) distributed across invidual presenters at ATTW.

Year of ATTW
(All)

Action **Agency** **Inclusion** **N/a**

Map based on location of presenter's home institution. Pie charts show ratio of social justice themes action, agency, and inclusion to presentations where these themes do not apply. Use the slider below to move across years (All, 2006-2016) to see changes over time.

Chart shows frequency of presentations for each year at ATTW. Colors represent themes of the presentations. N/a designates non-social justice presentations.
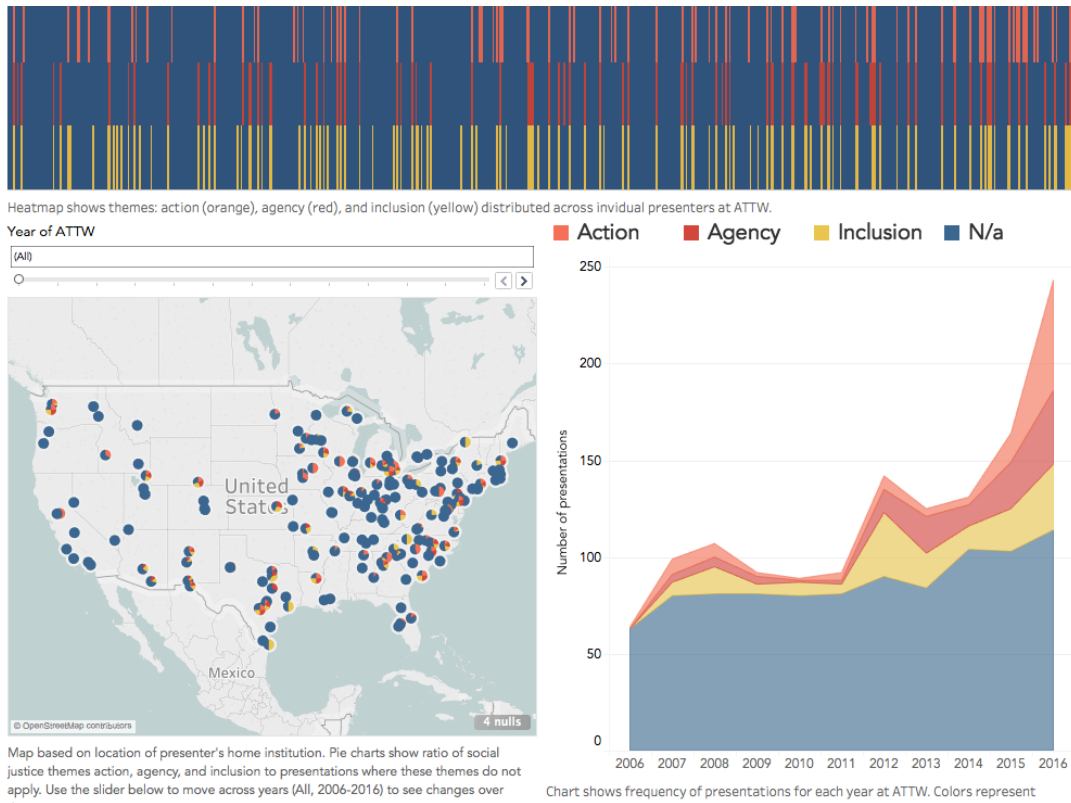
Figure 4. Overview of interactive data dashboard

Figure 5 (below) is a stacked area graph that shows the frequency of presentations at ATTW conferences with social justice components (y axis) over the course of 10 years (x axis). The colors of the area graph represent different themes of social justice in presentations. From observing the x axis and collapsing the colored areas, the focus is on frequency of presentations with social justice components occur over time. From emphasizing the colored areas, the focus is on discrete themes of social justice trend over time.

40
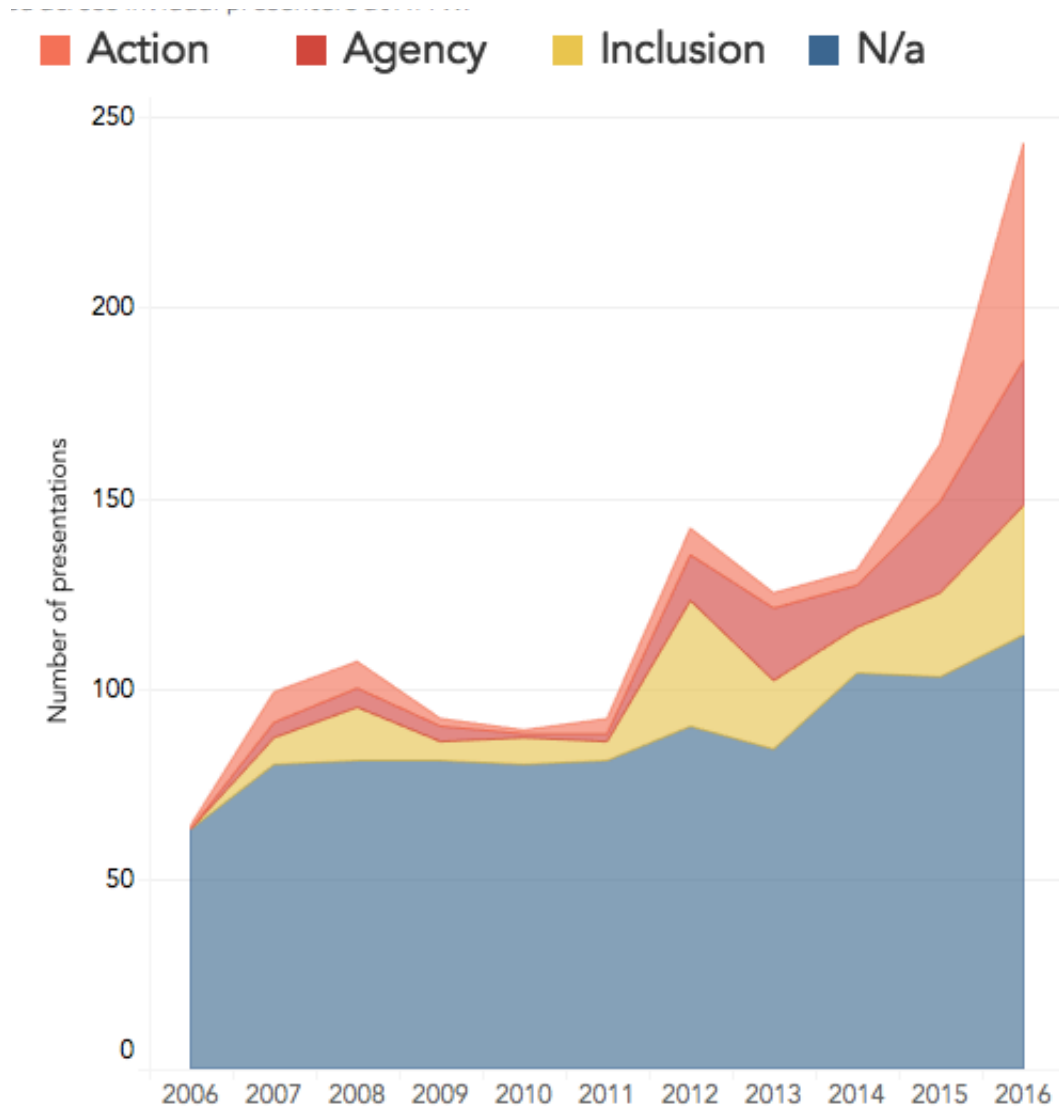
Figure 5. Frequency of social justice presentations at ATTW 2006-2016

Figure 6 (below) is a heatmap that shows what combination, if any, of social justice themes are present across individual presentations. The rows of the heatmap from top to bottom represent action (orange), agency (red), and inclusion (yellow). Individual presentations are not identified by the presenter's name in order to focus model on themes, not individuals. Although the relationships across social justice components themes are related, and easily permeable, this clustering shows combinations of themes, which prompted me to question how social justice practices might account for inclusion when doing action-based work, or might prompt researcher

action when doing agency-based work.
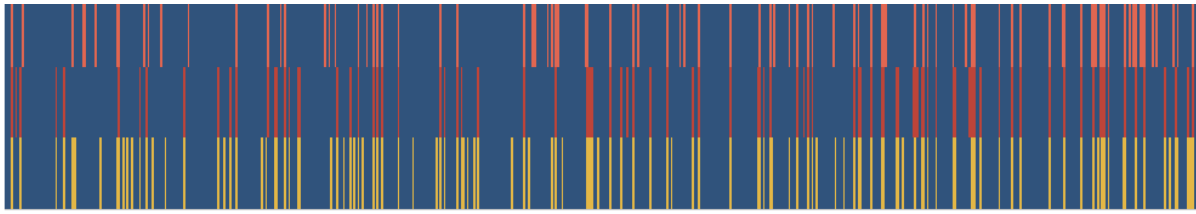
Figure 6. Heatmap of social justice themes

Figure 7 (below) is a filled layer map of social justice themes at from 2006-2016. The plotted locations are based on presenter's affiliated institutions. The size of complete pie charts represents the number of presentations from an institution per year. The orange proportions represent action, the red proportions represent agency, the yellow proportions represent
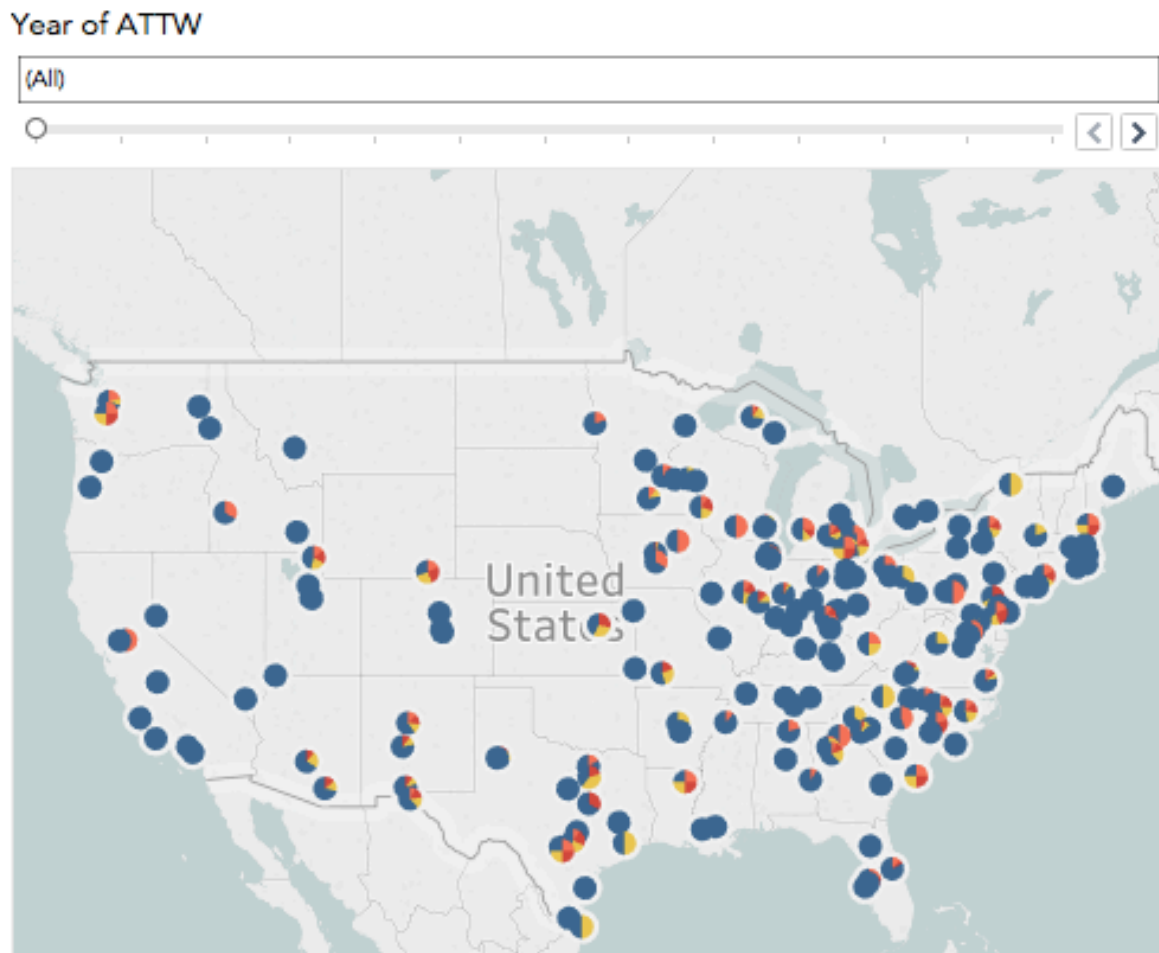
Figure 7. Filled layer map of social justice themes at from 2006-2016

inclusion, and the blue proportions represent presentations that do not have social justice themes. Using this map allowed me to explore how themes did or did not disperse over time, as well as their geographic density and context. Although represented with pie charts, this map encourage me to ask questions about the benefits and constraints of place.

These data visualizations were not isolated or static renderings, but interactive and exploratory media that I visited and revisited frequently as an analytical dashboard of sorts. What these visualizations helped me explore were the themes of technical communication research as they incorporate social justice practices. From these trends, I found new questions to ask researchers. For example, what can social justice researchers help technical communication understand about inclusion? What these data visualizations do not show are the importance of social justice, the scope, application, sentiment, and reception of social justice scholarship within the field. These visualizations simply affirm presence—which is why I designed my study in two parts 1) to use this data visualization as a methodological heuristic for invention and 2) to use qualitative interviews to enrich these patterns. However, these visualizations were nevertheless useful as a heuristic "for noticing connections among programs and people, publications and conferences, activities and their material castings, difficult questions and myriad stakeholders" (Mueller, 2018, p. 3). Using these visualizations, I narrowed and focused my research questions, my interview questions, and identified themes across researcher narratives.

Conclusion

In the next two chapters, I present data narratives from researchers around these themes. To humanize these visualizations, I paired them with interviews from four researchers in technical communication so that in my analysis I could again unravel and reweave disciplinary activity. Mueller (2018) argues that such "hyper-local, narrative-based accounts of disciplinary

emergence operate more powerfully when paired with data-based accounts" (p. 8). Although I

paired visualizations with researcher narratives, visualizations themselves are still viable and

productive to social justice projects as long as the underlying mechanisms that drive such candy

colored design apply critical computation

After reviewing my data sets, my codes, and my models, I identified three themes to consider

for practices and commitments to social justice.

- inclusion: processes and actives that value and/or acknowledge experiences of peoples

    across racial, national, ethnic, cultural, queered, gendered, dis/abled identities

- public action: processes and activities that facilitate change along civic and public realms

    toward a democratic outcome

- agency: processes and activities that define problems/generate solutions based on

    consequences of communicative and/or technological meditations

CHAPTER 3: ADVOCACY AS A RESEARCH PRACTICE

Technical communication has an extensive, but sometimes overlooked, body of scholarship (Jones, Moore & Walton, 2015) that both "examines the importance of communication" (Rude, 2009, p. 194) and "rethinks issues of power and put a priority on empowerment" (Blyer, 2004, p. 145). The frequency of research like Miriam Williams' (2010) on the roles of communication artifacts (like state laws) and practices (like regulatory writing) in perpetuating oppression has increased significantly since 2006 and is dispersed at universities across the country. In addition, work like Jared Colton and Steve Holmes' (2018) that considers social change (like verifying equality) as a habitual practice of technical communication is a significant component of this growing research area.

What the data visualizations in the previous chapter cannot show, and what scholarship in technical communication is only starting to articulate explicitly, is how to conduct research related to social justice. As Jones (2016) asks:

> How should our research address power in socially unjust situations? How can we, as technical communication educators and scholars, not concern ourselves with "the unquestioned norms, habits, and symbols" in communication that impacts the human experience on a daily basis? (p. 348)

In addition to addressing unjust situations, how do researchers avoid replicating inequality (Kirsch, 2012)? These questions reinforce the larger research questions I offered in Chapter 3 by focusing on action through research and through every day practice. To answer those questions, I enrich the themes from the data visualizations and interviews with narratives from four scholars in technical communication in order to identify advocacy as one component practice of social justice research.

In this chapter, I provide an overview of advocacy practices in technical communication scholarship. From this review, I define advocacy as interventions, individual and institutional, in oppressive technological mediations that empower or validate the equality of marginalized, disenfranchised, or underresourced peoples (Jones, 2016; Colton & Holmes, 2018; Agboka, 2013). Then, I provide thematic data narratives from participants them as examples of advocacy as a research practice. I find that my participants practice advocacy in social justice research when they intentionally enact, promote, or facilitate justice across research settings, throughout research processes, and with research partners.

Reconsidering Advocacy in Technical Communication

In Chapter 1 and 2, I identified critical research (Miller, 1979; Sullivan and Porter, 1997; Herndl and Licona, 2007), participatory action research (Blythe, Grabill, & Riley, 2008), and feminist research (Lay 1989; Flynn, 1997) as a few foundations of contemporary social justice scholarship. Then, I illustrated the connections between social justice research commitments of action and change to advocacy. Building on that work in this section, I share the changing definitions of advocacy in technical communication[15] to chart the term *advocacy* as a research practice.[16]

Social justice research as articulated by Jones (2016) builds on a longer tradition of advocacy in technical communication research. Early research focuses on user advocacy (Johnson, 1998) or the facilitation of interactions between designers and users to "responsively ensure that information is usable, useful, and compelling" (Hart-Davidson, 2013, p. 52). Users, once perceived to be "at the bottom of the proverbial epistemological ladder," (Johnson, 1998, p.

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[15] Writing studies writ large has a long and meaningful tradition of including the rhetorical practices of neglected or silenced voices (see Kirsch, 2012).

[16] Creswell (2003) refers to qualitative research with "an advocacy perspective" that recognizes inequalities and works to address that inequalities.

44) contribute to design processes by participating in conversations with engineers and designers. For example, Salvo (2001) navigates the movement from observation of users to participation with users, arguing for "the dialogic ethics" in collaborative processes to "guide the development of effective and human technological methods" (p. 273).

As an interest in civic engagement grew, particularly in relation to environmental justice (Waddell, 1995; Simmons 2007) and public policy (Bowdon, 2004; Williams, 2010), the term user advocacy expanded. In addition to arguing for users to have a place in processes of design, Grabill and Simmons (1998) identify users as "citizens" with knowledge to contribute in public decision-making processes. Additionally, material realities of users became increasingly significant, as Lisa Meloncon (2013) notes "know your audience" is a central tenet in this field, but we often overlook the embodiment of users (p. 72). These reconsiderations of user lives required technical communicators expand their role as facilitators between user/citizen and designer/policy maker.

As such, scholars in technical communication began to advocate in research, as well as in design and public processes. Lindemann (2007) found that "the boundary between advocacy and scholarly discourse in conservation may be shifting" (p. 449). Scholarly writing and advocacy forums, he says, appear to converge. He notes that the purpose of writings across both discourses was "to further the cause of conservation by communicating their work to those who are in a position to implement it."

Not only do technical communicators advocate for users and citizens, they also advocate *with* them. Blythe, Grabill and Riley (2008) and Williams and James (2008) both facilitate public engagement plans, then report on the role technical communicators can play in implementing those plans. Moore (2017) refers to these projects as demonstrations of technical communicators

as "citizen advocates, seeking to create more equitable and just decisions about policies and community development" (p. 239).

In her article "The Technical Communicator as Advocate: Integrating a Social Justice Approach in Technical Communicator," Jones (2016) invokes Young (1990) to name five types of oppression (exploitation, marginalization, powerlessness, cultural imperialism, and violence). Young argues for an understanding of oppression as structural, not as a consequence of individuals' choices. As a result, Jones suggests individuals that experience oppression as an environment, which cannot be changed through their actions. Instead, transformation requires collective action. Thus, scholars must:

1. "Be aware of the ways that the texts and technologies that they create and critique reinforce certain ideologies" (p. 345)

2. "question how communication shaped by certain ideologies affect individuals" (p. 345)

3. "directly engage with issues of injustice, inequality, and dehumanizing forces" (p. 347)

Drawing from this literature and focused toward this dissertation project, I situate *advocacy* in technical communication as interventions, individual and institutional[17], in oppressive communication practices and technological mediations with the outcome of empowering or validating the equality of marginalized, disenfranchised, or underresourced peoples (Jones, 2016; Colton & Holmes, 2018; Agboka, 2013). In the following section, I use this understanding of advocacy to identify research practices and consider those practices as advocacy. Thus, technical communication researchers in this study who identify social justice as

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[17] Scholars in Communication for Social Change (CfSC) label these symbiotic needs as grass roots advocacy (individual) and policy advocacy (institutional)

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a commitment build on this tradition and approach of advocacy in research, however, there are specific nuances related to their aims.

Findings

Technical communication scholars who conduct research related to social justice are a small, but diverse group, who vary in experience and practice. Among those scholars, I was able to speak with four people through semi-structured interviews.[18] David is an Associate Professor and a researcher who considers the purpose of his scholarship to draw attention to work ignored by the field. Jessica, an Assistant Professor up for tenure, says she wants social justice research to take action in the world to eradicate oppression. Sarah is a first-year Assistant Professor and self-identified social justice researcher whose purpose is to make space for her communities. Finally, Vincent is a Professor Emeritus and studies organizational and professional contexts for social justice. In this section, I share the ways that many practices converge in action, drawing on David, Jessica, Sarah, and Vincent's stories and experiences as evidence. Focusing on why they conduct social justice research and whom they choose to partner with, practices of advocacy emerge as catalysts for varied aspects of their research processes, constraints to be challenged across disciplinary and institutional settings, and productive disruptions with research partners and participants.

Advocacy through Research Processes

Just as Jones (2016) argues for the significance of inclusivity in social justice research and advocacy, each individual in this project speaks of inclusivity as important for inspiring and sustaining the arcs of their social justice research processes. Increasing the inclusivity of

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[18] In an earlier chapter I introduce my participants in detail, which I have summarized here for context.

scholarship in technical communication is central to their advocacy practices because it affords

multiple avenues for them to engage in individual and institutional interventions. Participants in

this study practice advocacy in their research processes by seeking inclusivity as a research goal,

designing reflexive projects, and taking responsibility for the consequences of executing and

sharing their research. These research practices contribute to social justice research by validating

and promoting diverse knowledges[19] and increasing the complexity of technical communication,

through which researchers are able to change the field and change communication practices.

Promoting Diverse Knowledges

When I asked my participants to share the purpose of their research, they all mentioned

increasing diverse knowledges in technical communication. Diversity is frequently mentioned by

researchers in this study because it allows them to understand current representations of diverse

knowledges in the field so that they can narrow and focus their areas of inquiry on knowledges

that are not represented or considered technical communication.

> VINCENT: …we wanted to start encouraging research. We realized that we
>
> needed a baseline of knowledge about the status of diversity in the field at that
>
> moment. At that time, 2009 or so, we didn't know whether there were any people
>
> of color or people representing any-- it's not just people of color, it's people who
>
> are usually marginalized usually not included or underrepresented.

Here, Vincent led a committee of colleagues and graduate students in a research project, with two

interconnected goals: to understand the representation of diverse knowledges in technical

communication and to increase the amount of research that validates diverse knowledges. Using

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[19] Jones (2016) says advocacy in technical communication "empowers our scholars but also values and legitimizes
other perspectives and experiences"

his research to document the current state of diversity in technical communication, Vincent was able to critique lack of representation as well as support future research validating diverse knowledges by advocating for the need of such work in the field.

In addition to documenting and increasing representation of diverse knowledges within the field, researchers I interviewed also sought to validate what diverse knowledges are considered technical communication.

> DAVID: I think there's a lot of research or work going on in the global south that we as technical communicators have not paid attention to. That's my goal. My goal is to draw attention to some of those unexplored issues in those particular areas. That's what I'm trying to do with my research.

David's research goal is two-fold: validating nonwestern technical communication practices and promoting those practices in the field through his research. Because this validation draws attention through his research to the existing knowledges in the global south, David advocates for diverse knowledges to be included in technical communication, which enacts and promotes social justice as he shares his research in the field.

Validating Diverse Knowledges

As Cushman (2015) argues "diversity alone does not ensure inclusion" (n.p.) because diversity is concerned with representation and, infrequently, relies on reflection. In addition to increasing the volume of representation of knowledges through research, those knowledges and populations must be respected to reach inclusivity. Respect in research moves beyond popular ideas related to politeness to represent participants fairly, accurately, and with honor (Kirsch, 2012). Kirsch (2012) speaks of respect in research as a major methodological challenge: as research "include[s] the rhetorical activities of those whose voices have been neglected, silenced,

or rarely heard…concern[s] for representing participants with respect, care, and complexity" (p. xiv) dramatically increases.

Seeking inclusivity as a central goal involves a shift in the perceived potential of research and work. Ahmed (2012) says that "diversity work is often about developing diverse communication strategies" (p. 25). For example, Sarah shared her research expectations:

> SARAH: I'm not necessarily looking for answers in my research, I'm looking for ways of illustrating complexity.

Because inclusivity depends on variables that are as numerous as they are fluid, seeking a single, static answer to a research question has the potential to reinscribe oppression by privileging replicable, verifiable research over dynamic subjectivities and local contexts. Instead, Sarah's research expectations of complexity allow her to negotiate conflicting experiences and knowledges in her data. However, Sarah does have to negotiate disciplinary challenges of rigor, which I address later in this chapter.

Sarah's practice of producing research with complex answers is different from hedging, a practice where researchers carefully avoid a "complete commitment to the truth" (Hyland, 1998, p. 3) partly to protect researchers against "a degree of liability" (Huebler, 1983, p. 18). Instead of avoiding claims, Sarah makes many in her research that functionally unite under one goal: to make space for diverse experiences and knowledges of participants in research.

> SARAH: Making spaces for us [Sarah and her community] is really important and valuable both to the learners themselves, but also to the field, because we [technical communication] have so much to learn. And we are not always listening to right people. So I think, if we listen to them [her community] and it'll expand the way that we [technical communication] can conceptualize ideas

broadly.

For Sarah, illustrating complexity in language use makes space for multilingual learners in technical communication by recognizing both the expertise of her participants and by advocating for their knowledge as technical communication and as beneficial to the field. Her research practices of advocacy enact social justice by making technical communication more inclusive conceptually and materially.

By validating and promoting diverse knowledges and increasing the complexity of technical communication, researchers in this study are able to increase the inclusivity of the field. Advocacy as a component practice of social justice research includes seeking inclusivity as a central goal of research. For my participants, seeking inclusivity means 1) a greater volume of representation of diverse knowledges and 2) increasing the complexity of representation.

However, my participants are simultaneously seeking to change the material realities of marginalized peoples, not just representation within the field.

> JESSICA: My purpose as a researcher is to throw my weight against the boulder with these other folks and shift the field from this oppressive, exclusive view that technical communication is what happens in western businesses, to a view that technical communication is communication that takes action in the world. I believe it should take action in the world for the purpose of eradicating oppression.

Jessica articulates her purpose as a researcher as part of a collaborative effort to affect change through shifting the field from western notions of technical communication to diversifying representation. She directly links nonwestern technical communication to material action that results from changing notions of communication practices.

Reflecting Productively

One of the challenges facing researchers who do work to mitigate the types of oppression Jones (2016) delineated is putting their research designs into practice. To conduct inclusive work, researchers must navigate "potential harms (e.g.,blind spots, assumptions, discourtesies, offenses)" to participants that stem from "the unquestioned, unacknowledged wielding" of power that the role of researcher entails (Jones, Moore, & Walton, 2016, p. 12). They also must negotiate positionalities that confer "unearned advantages and disadvantages," which "shape researchers' and others' assumptions and experiences relevant to the research project" (p. 12) Researchers must constantly consider whether their practices "reinscribe marginalization and disempowerment or promote agency and advocacy" (Jones, Moore, & Walton, 2016, p. 10).

Frequently and unintentionally, traditional research practices can reinscribe oppression through the research process:

> VINCENT: Part of what I think we have to recognize is that virtually everything we have been taught about research is rooted in and the Western colonial tradition, which assumes that knowledge is like a natural resource that we have a right to. We appropriate it for our own purposes, measure it by our values. It's always in our own cultural terms.

A way that social justice researchers in this study responded to this challenge is by practicing productive reflection as they execute, and share research related to social justice. Productive reflection here means that researchers frequently consider the power, positionality, and privilege of their participants and themselves, then use those reflections to act. Reflection and responsibility requires positional thinking (Kirsch, 2008; Agboka, 2014; Jones, Moore, and Walton, 2016).

Productive reflection occurs as researchers in this study acknowledge participants while articulating their research purposes and research designs. Although social justice research seeks to increase diversity of knowledges in technical communication, unreflective research can result in exploitation, forced consent, and further marginalization.

> DAVID: if you look at the history of qualitative research methodologies, because I think that whenever we talk about ethics or social justice, we point to qualitative research methodologies, but of course the history of qualitative research is also tied to the colonial project, right as you probably know already.

For David, and for other participants, conducting research with a subjective tradition does not ensure just practices. He reflects on the complicity of the qualitative research traditions so that he can use his positionality to create a reflective research design.

When I asked Vincent about practicing research he shared why he was drawn to a listening methodology that requires him to reflect throughout his research process:

> VINCENT: I think at least it [listening methodology] forces us to start completely rethinking what we think we can accomplish or should accomplish with research that's motivated by a spirit of social justice… This is the issue about listening: You can't listen and hear if what you get them to say is an answer to a question that comes out of your own world view, that reflects your own values, your own notions of what must be true. In other words, you only hear what you want to hear.

Incorporating listening as a methodology (Ratcliff, 2005) is not productive reflection—listening can be a part of productive reflection, but more significant here is how Vincent responds to listening. He pauses to consider the reach of social justice research by *rethinking*, considering

initial thoughts about social justice research and pausing, then actively incorporating constraints and limitations into his reflection. In productively reflecting about what social research can or should accomplish, Vincent was able to design research with respectful limits to his practices so that he would avoid forcing consent or exploiting marginalized knowledges.

As social justice researchers in this study analyze data and share their findings, practicing productive reflection continues to look like a rethinking, followed by action:

> JESSICA: He [a colleague of Jessica's] was using the term *social justice* which was a much better fit, a much better mindset, just way more appropriate because it's broader, more inclusive. There's a lot more work that could be done under that umbrella and it's for the same type of purpose as this ICT for D business. It was my second year as a Professor that I was like, "Okay, I'm going to keep re-enacting my values with this work but I'm going to call it something different because that's more appropriate."

Here, Jessica thought about how she was using a framework that worked with her data but did not make room for all the possibilities she saw in her participants. Then, as she recalled the framework of a colleague, she thought again, reflecting on inclusivity and the role of frameworks as reenactments of her values and purpose as a researcher. Using these reflections, she productively pivoted her framework so that she could practice more inclusive analysis, as well as practice her values.

Productive reflection allows my participants to consider not only the ways their findings will contribute to and affect the field, but also what the consequences of their research processes will be for their participants as they advocate for change. Across phases of design, execution, and sharing of research, my participants echoed David's questions:

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DAVID: What will be the effect? what can this research do for the people or for a psyche or what kind of change can this research make, in terms of the communication artifacts or the products that we design for people to use and all that?

In order for productive reflection to become a means of advocacy, researchers in this study also hold themselves accountable to justice and to partners during projects, and after projects have concluded. By considering accountability connected to their role as researchers, they are able to see the ways in which they/their research are implicit in and contribute to marginalization and oppression, and they are not only required to question, like David does above, and to act accordingly. As researchers attempt to change, they carefully consider the effects of their own interactions, exchanges, and relationships.

Advocacy Across Disciplines and Institutions

Sullivan and Porter (1997) describe potential disciplinary tensions for critical action researchers because their use of critical theory frames phenomenon in ways that makes their findings "not very transportable," (p. 165). My participants indicated that disciplinary and local institutional settings offer additional challenges, in terms of adapting research processes to validate nonwestern knowledges while simultaneously accommodating research in ways individuals and institutions oriented more toward traditional research practices will hear. In local institutional settings, researchers in this study negotiate constraints and risks to practice advocacy research. These are spaces that, as researchers, they must be prepared to engage with in order to retain or advance their careers and make contributions to knowledge within their fields. workers work from their institutional involvement. Academic researchers in this study work *from* their institutional involvement and do not simply work *at* institutions. Part of advocacy as a

research practice means my participants also work *on* institutions and disciplines, given that their explicit motivation is to redress existing institutional goals or priorities.

Because researchers in this study see "technical communication as a site that can potentially redress inequities both in the academy and in the public sphere" (Moore and Elliot, 2016, p. 80) their work related to social justice, frequently, bumps against longstanding institutional policies and practices, as well as disciplinary histories and traditions. Geisler (2013) speaks to the assumptions of academic work:

> Academics are expected to read and write their way to the construction of knowledge by establishing valid facts using the methods of their fields, putting these facts together to construct an argument according to the general cannons of logic, and then clothing the results in a language that would enable readers to understand them clearly (p. 4).

The difference for social justice research in this study is two-fold: not that institutions and disciplines are active agents against equality (although…some are), just that practices of oppression often work under the pretense a tradition, a history, the way something has always been done, and at the worst, a system designed to replicate oppression. "The institution can be experienced by practioners as resistance" (Ahmed, 2012, p. 26). My participants practice advocacy by mobilizing language to adapt their research, validate or accommodate information across institutional and disciplinary settings, and negotiate cultural modalities with the spaces they exist in and move through like national and regional conferences, academic journals, and institutional settings like classrooms, committees, IRB, grant funders, or online spaces (like Facebook and Twitter) that require disciplinary and institutional performances.

Disrupting Productively

A critical component of practicing advocacy is the ability to also be spoken to, to be called out, reprimanded, and held accountable for aspects that have been overlooked, neglected, or otherwise ignored. Because no researcher is infallible, objective, or all seeing, the ability to be open, transparent, and willing to welcome critiques is a critical practice of advocacy so that researchers may then use their resources to facilitate change. I call this *productive disruption*. Researchers in this study practice advocacy as they encounter productive disruption and listen to stakeholders. When a researcher practices advocacy by reflectively receiving critique, in a variety of forms, then leveraging their power and resources to act on the behalf of those in positions of less power or resources. Sometimes productive disruption happens *to* researchers, while other times productive disruption happens *with* researchers, enrolling researchers in productive disruption toward various institutional, governmental, and organizational hierarchies. Across these data narratives, what distinguishes a productive disruption are two practices: listening and responding by researchers.

Sullivan and Porter (1997) discuss potential tensions between researchers and participants in critical research that stem from the "power of researchers over participants and the need for critical researchers to take self-reflexive positions within their studies" (p. 186). Part of this reflexivity involves articulating positions and advocacy:

> It is of particular analytic interest when advocacy and roles clash in a situation, as when, we try to advocate an action while we are positioned in a role that does not have sufficient force to sustain our advocacy of that action (p. 184).

My participants practice advocacy with research partners by being held accountable to engage with critiques, reprimands, and demands then using their resources to facilitate change.

Researchers specifically, and advocates in general, are not characterized by their ability to have full expertise or knowledge of all inequalities, material realities, and struggles. Because the researchers I spoke with have held administrative positions in their disciplinary organizations, department program, and community centers, they also experience the inverse of Sullivan and Porter's example—my participants have been in positions and roles that have sufficient force to sustain action, but because of their positionality, researchers lack the perspective of what action should take place. As a result, my participants have had encounters where they are held accountable to leverage their positions and roles to act by stakeholders, community members, and participants.

> VINCENT: She (a committee member) said, "Look around here. We're all white, and we've always been white. What are we going to do about that? It's time that we change"…Really nothing happened. Finally, I realized I feel strongly about this, and if anything's going to happen, as ineffective and feeble and unqualified as I think I am, I'm going to have to try to do it.

Here, Vincent hears a critique, acknowledges his position and ability to act for change, then uses his resources as a researcher to address a lack of diversity through his research.

When working with research partners across industries, communities, and languages, hierarchies frequently challenge the ways my participants worked and communicated. Below, Jessica shared a story with me about a time when she was conducting research with a business partner who wanted to change reporting processes in their local offices. As part of her research, Jessica spoke with local offices to discuss implementation of these reports. However, employees at those offices were quick to object, because of the ways those reporting processes did not account for their material realities.

JESSICA: This woman stands up and she starts yelling at me in [not in English] and it was really like, "Oh, crap." Scary. Not scary like I felt in danger, but scary like I've offended someone, what's going on? My translator explains, "She says that you're going to make her work take twice as long she's going to be able to help half as many people because of what you're doing." I say, "Tell her thank you. Tell her thank you so much for telling us this. Please tell her to please explain what she's saying, so I can share this information back with headquarters so that we're not going to constrain their work." I shared that back with headquarters, and they had some ideas for different ways they could do it and different devices they could use instead. That was a moment of realization as a researcher. What I realized was good intentions don't cut it. There is a lot of expert knowledge that resides in different places, that when you're trying to look for it and draw an inch, it takes the form of disruption a lot of the time, and it's better to invite disruption as early as possible.

Instead of leaving her research project, practicing advocacy gives Jessica an opportunity to use the data she does collect to be productively disruptive in her business partner's plan. Disruption is a productive process here that allowed her social justice research to fully advocate for an informed need of her participants, not just what she or an organization thinks is best. In this instance, advocacy happens *in situ* as Jessica facilitates communications between organization and employee in order to effect change and collect data.

DAVID: This is a challenge to both the goal or the issue at that point becomes how do I make sure that these people understand that I'm trying to do or conduct this research from their perspective, that's the challenge.

Active Responsibility and Accountability

Boedy (2017) articulates *responsibility* as a bridge theory between technical communication's "ethical turn" and "renewed focus on invention" as technical communicators become "innovative, independent, and networked problem solvers who work creatively across disciplines, time, space, and organizations to design solutions," (p. 116). Technical communicators are placed in a "more binding and complex relation with others" and compelled to participate in "ethical inventions—a responsibility to and for language" (p. 117). Social justice researchers in this dissertation act against inequalities by acknowledging their complicity in oppressive systems and using their identity as researchers, imbued with power and privilege, to respond. The joint actions of acknowledging and responding, or what I call active responsibility, becomes a generative part of research processes by prompting researchers as critical actors in their own research problems so they can consider how they can leverage their resources toward equitable ends. When sharing the impetus for his research, Vincent commented on the need he felt to act in response to an absence of diversity:

> VINCENT: I realized I feel strongly about this [diversity], and if anything's going to happen, as ineffective and feeble and unqualified as I think I am, I'm going to have to try to do it…. But when we [research group] started trying to develop a research study we decided we should try to get a broader picture and we used all of the diversity categories in the U.S. census, so it included ethnic diversity, people with disabilities, and gender identity. That seemed to require surveys. So I worked with a graduate student of mine at the time, [name redacted] to devise a national programmatic survey and at about the same time, [name redacted] and I developed a study of technical communication programs and/or courses at

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HBCUs and TCUs.

Vincent acknowledged the lack of diversity in his field, as well as the current stagnation of any actions to increase representation. Although he could push this request to national organizations or programs, his "strong feelings" compelled him to "try to do it" or conduct research to document diversity in technical communication, despite his areas of expertise in other areas of scholarship. Because Vincent acknowledged his role in this problem of diversity, he was able to generate a research project that allowed him to actively contribute toward a just solution in this case research. Active responsibility served as a generative research moment through advocacting practices.

Active responsibility not only generates possibilities for researchers as critical agents, it also requires my participants to hold themselves accountable throughout research processes--to themselves, the field, participant groups and beyond.

> SARAH: I have a commitment to giving back to people who are willing to share the experiences and stories with me. And so the way it -- social justice manifests itself in my work, is that whenever I ask someone to be a participant in anything, I will always say, "What can I do in return?"

Here, Sarah articulates how active responsibility manifests in her research practices by acknowledging the labor of her participants and responding by leveraging her resources in kind. Thus, she is able to hold herself accountable to her participants, who are sharing their labor and experiences with her. Similarly, David shares his own accountability practices:

> DAVID: After my research processes, I ask myself questions about, "Did the research do what it said it's supposed to do? Did it have the required or necessary impacts and all that?" Those are things that are-- It's a very dynamic process and

it's unstoppable.

Accommodating Research Findings

In order to engage multiple disciplines and fields, participants in this study mobilize their language to practice the accommodation of information for just ends. Ahmed (2012) refers to language work of diversity practioners in institutional settings as "switching:"

> Diversity workers switch between different languages, as different languages can switch different buttons on (an "institutional switch" is what allows something to get turned on). What is interesting to note here is how apparently contradictory logics can be used simultaneously: in other words, the business model and the social justice model can be used together, or there is a switching between them, which depends on a judgment about which works when and for whom. This switching involves attaching the word "diversity" to other words, by mobilizing different kinds of vocabularies. Practitioners work with the term "diversity," by attaching it to the other words that are already valued by the different constituencies with which they work (p. 75).

Practioners judging what "works when and for whom" is both rhetorical in the consideration of audience, context, timeliness, and so on. However, Ahmed notes the use of different kinds of vocabularies that have value for different audiences. Thus, "switching" can also be connected to Jeanne Fahnestock's (1983) term *accommodation*, which refers to the translation of scientific information across genres. Because the term accommodation has a disciplinary history in technical communication, using it in this section, enriched by Ahmed's "switching" to include moving across fields as well as genres. Because fields of study, like genres, have different conventions for sharing and validating information, any time information

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is moved from one field to the next it must be modified with those values and audiences in mind.

Because my participants draw on multiple traditions, they harness rhetorical approaches to be heard across epistemological difference. Sarah speaks of her accommodation work in terms of validation:

> SARAH: I think of it as hoops, that if you jump through one, you'll get heard by the other one, and therefore it makes a contribution. You honor the disparate moves you are expected to make in order to speak truth to traditional audiences in order to contribute to conversations across ideologies, all in order to change community realities. I know that each of these fields is important and care about specific things, I listen to what they care about, and so often I care about the same thing but use different words for it. So I listen and speak back in a way I know they will hear.

Many rhetoricians will recognize careful identifications of audience and a rhetorical situating. In addition to the rhetorical consideration, as Sarah accommodates her research, she is simultaneously validating multiplicities of knowledges across fields that value different ideologies and epistemologies. She listens and takes a "yes, and…" (Fey, 2011) stance, which allows her to validate their work and expand the possibilities to include equality. Through this validation, she is able to "speak back" and advocate for change across fields within her discipline, instead of leaving or being silenced.

Adapting Research Processes

Researchers in this study practice advocacy by adapting their research processes to validate or accommodate conversations across disciplinary settings to promote justice. Jessica engages in a conversation with her research partner about western traditions of analysis that are

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commonly used within the disciplines of technical communication and rhetoric and composition.

> JESSICA: She [research partner] was like, "Yes it would, but is it weird? Does it serve the data well? Is it a good idea to use such an explicitly western framework to interpret this data? I wonder how people there are thinking it through." I'm like, What a great question. But asking these questions of such an explicitly western interpretive framework for this particular data, "Is that appropriate?" That's a great question.

Instead of telling her partner that they cannot use nonwestern frameworks, Jessica is able to retain a methodological adaptability—because her research commitments center on equality, she can look at research traditions in historical contexts and recognize the need to analyze data through more culturally inclusive methods for her participants and for herself. Through this adaptation, Jessica is able to validate nonwestern frameworks, and advocate for the use of those frameworks as equally rigorous knowledge this is disciplinary knowledge.

Negotiating Protocols and Processes

Ole Elgstrōm (2000) describes that practices related to equality have to "fight their way into institutional thinking" (p. 458). Although Ahmed (2012) notes that institutions frequently seek commitments to diversity, "the official desire to institutionalize diversity does not mean the institution is opened up" (p. 26). Thus, many practioners seeking equality at institutions must work with/through/around protocols and processes that are not "opened up." As my participants "come up" against these institutional processes, they practice advocacy by negotiating constraints and risks so that they can carry out research related to social justice.

While constraints in institutions are numerous, my participants frequently spoke of negotiating institutional protocols that were designed with certain types of research traditions,

projects, and subjects in mind. For example, one protocol is having human subjects must sign

consent documents with their identifying information. Jessica spoke of negotiating institutional

approval to conduct research with a remote community in the Global South.

> JESSICA: Because this idea of officially signing a document, we [Jessica and her
> research partner] felt would be so intimidating to participants. It would also mean
> that we're carting bags all around with identifying information. Crazy. This is not,
> I believe, a great way to protect people. It is a great way to intimidate people and
> to open up possibilities of having their names be all over the place. We went back
> and forth, back and forth, back and forth, back and forth, about how to get a letter
> of information approved instead of a signed consent form. I understand IRB, it's
> not like they think I'm an unethical jerk, they don't, but unethical jerks do exist in
> the world. I think that IRB maybe, when it's such a high stakes thing they want to
> really, really, really make sure people know their rights. We compromised on
> doing a letter of information that I would sign in front of participants and a
> witness, which was our translator, signed in front participants. That way,
> according to IRB, there was someone that they could check up on, besides me, to
> make sure that we had really gone through the form with people, etc.

Jessica's story illustrates a challenge that researchers in this study confronted when doing work

related to marginalized populations—the cultural context of participants requires frequent

negotiation with institutional processes that were designed without these cultural contexts in

mind. Without this negotiation, a researcher like Jessica could meet institutional protocols and

act ethically while at the same time breaking the norms or conventions of her participants and

increasing risk of harm.[20] By negotiating with IRB, Jessica was able to lower the risk for her participants and conduct her research in a way that the IRB recognized as protected, and a way that worked with her values.

Kimmie Hea and Wendler Shah (2016) Scott described hyperpragmatism as an ideology and a set of practices that aims primarily to promote career success (p. 292), with a focus on conformity, clarity, and efficiency. Because research related to social justice is coupled with explicit methodologies and stances committed to equality instead of clarity or efficiency, my participants must also prepare for challenges to their work at the institutional level. For Sarah, an institutional challenge took the form of a conversation with a dean about researcher bias:

> SARAH: but I had a job interview recently and someone asked me, "What do you think of yourself as a researcher? Are you biased?" And I'm like, "Abso-fucking-lutely. Yes." I said that at the interview. I was like I am absolutely biased and if you know me, you know my agenda and you know how I'm going to position the people that I work with. I will always be biased and I don't claim to be neutral in those situations, especially when you're talking about issues of diversity and stuff, I'm never going to position my participants in a negative light. This is not going to happen and I'm cool with that and I'm cool with people knowing that. I think taking that stance is also part of social justice. I'm going to just instead show you what they're good at. It's limiting in some ways, sure, I think that person probably thought it was limiting in my work, but that's okay.

Here, Sarah practiced advocacy in an institutional setting by articulating her research stance explicitly in favor of diversity and social justice whereas researchers in empirical areas would

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[20] See Lambek (2010) for discussions of "ordinary ethics" and issues of morality

favor objectivity. Instead, Sarah adapts the idea from researcher bias to an agenda that is linked to her identity.

Conclusions and Implications

Sarah, David, Jessica, and Vincent research as a way to mobilize change within a field that has a dedication to pragmatic solutions (Jones, 2016). My participants illustrate how technical communication scholarship can engage in more equitable and inclusive action-based work by validating diverse knowledges and increasing the complexity of those representations. These moves entail working across multiple fields in order to 1) listen to, learn from, and honor voices in culturally-specific fields like Black Studies, Latinx Studies, 2) to create a bridge from those fields to technical communication, rhetoric and composition 3) to intervene in conversations, traditions, and protocols. When speaking across fields, the movements of researchers expands what it looks like to situate research specifically (rhetorically), with intention but also with breadth.

As researchers adapt and challenge disciplinary and institutional settings, they also welcome disruption in their relationships. A critical component of practicing advocacy is the ability to also be accountable for aspects that have been overlooked, neglected, or otherwise ignored. What these discussions of advocacy across research and technical communication illustrate is a critical tension of social justice research to affect change both on individual levels, for themselves and participants, and institutionally. Practicing advocacy in research acknowledges agency of the oppressed and the responsibility of the researcher as an agent of change. Thus, research becomes a space of opportunity for multiple subjects (researchers, participants, disciplines) to negotiate, resist, and act.

Previously social justice researchers have defined social justice as "research in technical

communication that investigates how communication, broadly defined, can amplify the agency

of oppressed peoples—those who are materially, socially, politically, and or economically

underresourced" (Jones, Moore, & Walton, 2016, p. 9). This chapter has expanded this definition

of social justice research by identifying advocacy as a component practice of social justice

research.

CHAPTER 4: STRUCTURING OPPORTUNITIES FOR RECIPROCITY IN RESEARCH

In Chapter 3, I identified advocacy as a practice of social justice. Foundational to that identification are the thematic data narratives from researchers about how they practice advocacy across the arcs of their research process. Although I was able to identify practices like promoting diverse knowledges and accommodating research, I also found that advocacy alone and any one of these practices does not ensure a researcher is conducting socially just work.

I began this discussion at the end of chapter 3 when I shared how researchers practice advocacy as they encounter productive disruption and listen to stakeholders. Across those data narratives, what distinguishes a productive disruption are two practices: listening and responding by researchers. While practices of advocacy show that a productive disruption might result in productive reflection on the researcher's part, productive disruption can also result in a myriad of interactions between researchers, stakeholders, communities, and beyond. These relational interactions are what I explore in this chapter—how it is researchers design with stakeholders in mind and how they respond to stakeholders as their needs, wants, and projects are in flux.

To answer my overarching research questions that I introduced in Chapter 1 and 2, and these related concerns, I identify reciprocity as a second practice of social justice research. Researchers in this study practice reciprocity when they structure opportunities to exchange knowledge, labor, and resources with participants and related peoples, communities, organizations, and influencers. The emphasis here on structuring opportunities is significant because reciprocal practices are precarious. The precarious nature of reciprocity stems not only from issues of interpersonal power and agency, but also "politically induced conditions, in which certain populations suffer from failing social and economic networks of support and become differentially exposed to injury, violence, and death" (Butler, 2009, p. 25). Thus, reciprocity is

not a guaranteed outcome of social justice research but an opportunity. In what follows, I define reciprocity as a research practice in technical communication. I continue by providing thematic data narratives from my participants to highlight examples of how structuring opportunities across research settings, with research partners, and through research processes.

Reciprocity in Technical Communication

Although scholars in technical communication and rhetoric and writing focus on relationships between researchers and participants, reciprocity can occur across unlimited permutations of actors (individuals, institutions, governments), relationships (public and private, familial and formal), exchanges (one to one, one to many, many to one), and motivations (gifting and gratitude, reward and punishment). Because technical communicators frequently conduct research across sites like industry workplaces, nonprofits, and community organizations, they interact with participants during research processes, but also interact stakeholders, subject matter experts, users, and clients. Research processes are not limited to researcher/participant relationships and thus, reciprocity must be expanded from exchanges in one relationship to more dynamic, and precarious, contexts. I draw from Ellen Cushman (1996) to define reciprocity in research around rhetoric and writing as "an open and conscious negotiation of the power structures reproduced during the give-and take interactions of the people involved in both sides of the [research] relationship" (Cushman, 1996, p. 16). Because power structures and researcher-participant relationships are situational, reciprocity must also be "a context-based process of definition and redefinition of the relationship between participants" (Powell & Takayoshi, 2003, n.p.).

Schmidtz (2006), a philosopher of social and political science, supplements

understandings of reciprocity as a social norm[21] with reciprocity as a value and goal:

> we [individuals] may consider ourselves obliged not to repay a debt but to promote a value. Specifically, we promote a capacity to repay debts, and we nurture the kind of character that takes joy in putting that capacity to use (p. 26).

The distinction here between a bounded one-to-one exchange (repaying a debt) and the ability to participate in exchanges (a capacity to repay) results in an affirmation of agency (joy in putting capacity to use). Within this framework, researchers can structure opportunities for reciprocity with participants, but also with the participant's community, broadly defined, to build capacity. Technical communication scholars like Grabill (2007) and Durá (2016) have understood *capacity* as the ability of community members to act. Thus, reciprocity as a value builds on social justice commitments in technical communication like amplifying the agency of marginalized populations (Jones, Moore, and Walton, 2016).

Building on these understandings of reciprocity, the social justice scholarship that I reviewed in chapter 1, and the themes of inclusion, public action, and agency from chapter 3, I focus on two areas of technical communication scholarship to discuss reciprocity: community-based technical communication and participatory design. Then in the findings section, I locate practices of reciprocity as the interrelated actions of acknowledging capacity, contributing capacity, building capacity, and using capacity in technical communication scholarship to locate the term reciprocity as a research practice.

The Idea of Reciprocity in Community-based Approaches to Technical Communication

In this study, community-based approaches provide a touchpoint to consider research approaches, challenges, and solutions when collaborating with and across communities.

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[21] Reciprocity as a social norm is typically constrained to rules of exchange

Communities, broadly defined, have long been sites of technical communication research, with researchers seeking to better understand writing (Edenfield, 2017), people (Eble & Galliet, 2004; Agboka, 2013), activities (Hart-Davidson & Grabill, 2011; Simmons, 2007), places (Pigg, 2014), tools (Propen & Schuster, 2008), and the relationships across them (Spinnuzi, 2013). Because community-based approaches span a variety of methodologies and methods, more scholars have increasingly distinguished a broad community-based approach that "simply requires research be conducted in a community setting, regardless of the level of community involvement" from a community-based participatory approach[22] with "a specific research orientation that promotes the active engagement of community members in all aspects of the research process" (Walton, Zraly, & Mugengana, 2014, p. 48). Differences in community research can be understood as prepositions: "[community-based work] can be performed 'in,' 'on,' 'for,' 'about,' or 'with' communities…" (Durá, 2016, p. 60). These distinctions are significant because "traditional research simply relocated to the community can be useless and even violent" (Grabill, 2007, p. 329).

Many community-based approaches share commitments to social justice, especially when scholars "work to empower communities" (Walton, Zraly, & Mugengana, 2014, p. 48) by balancing the expertise of researchers and community members, offering shared ownership of research products and public access to research. Most directly, community-based work contributes to social justice by structuring inclusive partnerships. When identifying threads of scholarship that contribute to social justice in technical communication, Jones, Moore, and Walton (2016) included community-based scholarship as an approach that can provide a foundation

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[22] Critical action research, for example, which I discuss at length in chapter 1

for expanding TPC audiences. Not merely users but active cocreators, citizens of all kinds require technical communication that demands more expansive, inclusive approaches to communication practices and to the theories that undergird knowledge making (p. 7). Community-based approaches emphasize collaboration, as well as material outcomes for participants and communities. Collaboration is a necessary precondition of reciprocity because "we [researchers] are not likely to invite participation if we do not believe in a community's ability or capacity to contribute" (Durā, 2016, p. 64).

Thus, community-based approaches to technical communication rely on partnerships with industry, government, and organizations in order to "increase knowledge and share power" (Walton, Zraly, & Mugengana, 2014, p. 48). From these partnerships, technical communication has conducted research to: improve public understanding (Bowdon, 2004; Rude, 2009; Simmons, 2007), localize technologies and texts (Gonzales, 2017; Sun, 2012), support democratic processes (Dorpenyo, 2017; Grabill and Simmons, 1998), and teach students about client relations (Youngblood & Mackiewicz, 2013).

Despite the affordances of community-based approaches, there are limitations and challenges. The process of research and partnership is subject to "diverging interests, conflicting values, and different commitment levels, all can inhibit or restrict the collaborative, reciprocal relationships we hope to establish with participants" (Kirsch, 2012, p. 2). Researchers have assumed their help is needed in communities without asking members, what Cushman (1996) refers to as "missionary activism" (p. 13) and Agboka (2013) calls "otherizing and recolonizing" (p. 29). Or, even if a research is critical and reflexive, sometimes community members still "exist as participants in social projects, not as partners with expertise who must be respected as agents in their own right" (Flower, 2008, p. 28). One method to address these challenges is participatory

design, which can "give equal weight to a community's agendas, assumptions, and interpretations" (Durá, 2016, p. 62).

The Idea of Reciprocity in Participatory Design

Participatory design (PD) is, at once, a set of practices and theoretical concepts found across fields like technical communication (Spinnuzi, 2005), user-centered design (Johnson, 1998), and software engineering (Muller, 2009). Created in the 1970s as a democratic solution to power issues in Scandinavian workplaces, labor unions lobbied to secure a place for workers in the design of the technologies they would use in their work (Guo & Hoe-Lian, 2014). PD methods partner research and design processes where stakeholders (employees, partners, customers, citizens, end users) become full-participants in design activities (open houses, workshops, charettes), testing (prototyping and iterating), and distribution decisions of technological products like computer hardware and software (Muller, 2009). As a methodology, PD emphasizes mutual learning and listening (Moore and Elliot, 2016), reflexivity, codetermination, and consensus building (Spinnuzi, 2005) so that researchers become "facilitators who attempt to empower users in making their own decisions" (Clement, 1996, p. 383).

Thus, PD provides touchpoints for structuring opportunities for reciprocity by acknowledging the intellectual capacity of community members and using that capacity in participatory knowledge making activities. Since PD's commitment to involving individuals "acknowledges and aims to decrease inequities of power" (Walton, Zraly, & Mugengana, 2014, p. 48), participatory processes can "reposition them [research participants] as powerful agents in the planning process rather than mere consultants or pseudo participants" (Moore and Elliot, 2016, p. 78). PD research can also contribute or build the capacity of participants since "results

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are disseminated in forms that users can understand and share" (Spinnuzi, 2005, p. 168). Other

approaches in design research (i.e. focus groups) incorporate participant perspectives, but only

through the observations and discretion of a researcher (Bødker,1991; Beyer & Holtzblatt, 1998;

Spinuzzi, 2002; Potts, 2014).

In their critique of PD, Moore and Elliot (2016) note that the mere presence of

participants in research processes does not challenge traditional power structures. For example,

incorporating participatory activities without a listening methodology[23] leads researchers to

collect only quantifiable and explicit data, leaving "messy" data like participant stories,

positions, experiences, and deliberations excluded. Scholars like Byrne & Sahay (2007) argue

that PD has not been adequately adapted for contexts outside of a Western business setting.

Practicing Reciprocity in Technical Communication

Drawing from this literature and focused toward this study, I situate *reciprocity* as a

research practice in technical communication that involves *structuring opportunities* to exchange

knowledge, labor, and resources with key participants and distributed stakeholders. Because

reciprocity is not only an outcome or relationship, but a value, the focus in this study is not what

is exchanged by whom, but *how* interrelated actions of acknowledging capacity, contributing

capacity, building capacity, and/or using capacity can amplify agency and contribute to social

justice. Thus, these interrelated actions create opportunities for researchers *and* stakeholders to

exchange knowledge, labor, and resources, not just with each other, but across their many

communities. However, these opportunities also allow participants to say no. In the following

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[23] Ratcliffe (2005) defined rhetorical listening as "a stance of openness that a person may choose to assume in relation to any person, text or culture; its purpose is to cultivate conscious identifications in ways that promote productive communication, especially but not solely cross-culturally" (p. 17).

section, I use this understanding of reciprocity to identify research practices and consider those practices as reciprocity. Thus, technical communication researchers in this study who identify social justice as a commitment build on this tradition and approach of reciprocity in research, however, there are specific nuances.

Findings

Researchers in this study practice reciprocity when they structure opportunities to exchange knowledge, labor, and resources with participants and their communities.

> SARAH: …when I do work with communities, with anyone, it's reciprocal. Directly reciprocal from the get-go and if they tell me what it is that you want me to do in return, I will continue seeking opportunities to do that, even after I have published my article…what can I do in return to contribute to your organization or -- and it can be something material like buying you lunch, sure, but I think what can I do intellectually is really what I mean by that question, because I'm asking for an intellectual gift from them in sharing their experiences or whatever and so I want to provide that same level of something in return not like, "Okay, now I'll buy you chips."

Often, reciprocity is discussed abstractly--as recognizing that participants have things to "teach" researchers in addition to researchers and more frequently having products to contribute to them (Kimmie Hea & Shah, 2016). Here, Sarah acknowledged the capacity of her participants (intellectual gift) and she in turn was able to not just contribute capacity, but actively build capacity of her participants and their organization by "continuing to seek opportunities."

Again, the emphasis in reciprocity as a research practice is not on collaboration, but rather on the structuring of opportunities for reciprocity. Below, Vincent discusses how

collaboration can and cannot contribute to social justice:

> VINCENT: The best we [researchers] can do is to try to collaborate and it's not even about collaboration because you and I can collaborate but it's still not necessarily social justice. It requires continually figuring out what's going on, analyzing problems, critiquing definitions and arguments and actions, trying to assure a voice and place in the world to everyone.

Instead of emphasizing collaboration, he focuses on a requirement of "continually figuring out what's going on," and "trying to assure a voice and a place." Because researchers in this study move across research settings, and work with a variety of individuals, and create processes to shift power, structuring opportunities for reciprocity involves the following interrelated actions:

1. Acknowledging capacity: learning about and valuing the ability of individuals (researchers, participants, and their related communities) to contribute to research through their available means (e.g. knowledge, resources, and labor)

2. Contributing capacity: making individual capacity available for collective action, not only action in a research process

3. Using capacity: inclusively engaging and applying contributed capacity, not only action in a research process

4. Building capacity: mobilizing capacity to amplify the agency of individuals (e.g. participants, their communities)

I illustrate the complex relationships of these practices with thematic data narratives from in the sections below that focus on structuring opportunities with research partners, in research processes, and across research settings.

Structuring Reciprocity with Research Partners

In this study, researchers frequently referred to the value and importance of their research "partners." When I asked Jessica who she considered research partners, her answer provided an ideological baseline for the varying individuals and exchanges in a research project:

> JESSICA: Sometimes my research partner is an academic, sometimes my research partner is a humanitarian practitioner, for example. Other times, more from cold calling. Maybe a research partner, like an academic, and I were talking and we have an idea of what we want to do, and we're like, "Wow, look at this problem," and here's an organization that seems to be not suffering from this problem.

The use of the term partner semantically signifies a shift that Flower (2008) noted between participant and partner: "Community members typically exist as participants in social projects, not as partners with expertise who must be respected as agents in their own right" (p. 28). For Jessica, research partners are active collaborators who might be participants, but can also be stakeholders, subject matter experts, teachers, and academics. Importantly, when a research partner is a participant (an organization), she takes an asset-based stance, which acknowledges their capacity (e.g. not suffering from a problem) to contribute intellectually to inquiry, and thus invites them to participate (cold call).

However, researchers in this study also partnered with individuals who were not participants but could collaborate in research to build the capacity of researchers and participants. For example, three of my participants Jessica, Sarah, and David all worked with their research partners to identify local individuals who could facilitate conversations across researchers and local communities. Sometimes these individuals worked with researchers and

participants as translators, organizational insiders, or cultural liaisons. These individuals contributed their capacity (cultural and intellectual), which in turn helped build researcher capacity (cultural and intellectual) which results in researchers acknowledging participants' capacity (cultural and intellectual), which structures opportunities for participants and researchers to contribute their capacities reciprocally.

Most often, researchers in this study structured opportunities to locate research partners in this manner because they recognized the limitations of own capacity (e.g. intellectually, culturally, and linguistically) in certain research settings. For example, David conducts multilingual participatory research that involves his participants in analysis. However, he also invites a "cultural informant" into analysis:

> DAVID: An informant is important. The goal is to find someone that they [participants] trust who understands both the English language and the local language that is familiar to them, and then of course they use that person as a translator to explain the recordings that I've done there with them.

David does not just hire a translator with linguistic capacity (English and local language), he locates a community member with cultural capacity (someone they trust). As David located a cultural informant as a research partner, the informant contributed their capacity (cultural and linguistic), which in turn helped build researcher capacity (cultural and intellectual) which results in researchers acknowledging participants capacity (cultural, intellectual, and linguistic).

However, David shares another reason, shifting power, beyond translation that makes cultural informants important in structuring opportunities for reciprocity.

> DAVID: Sometimes in this research that I'm talking about, it was an area that was known to me. I understood almost all the local languages, right? Of course, even

if I understand the local language, it doesn't mean that I'm telling them

[participants] the truth right? At some point, their informant must stick with those

people on their behalf.

Cultural informants here build participant capacity to object, dissent, and ultimately say no,

which amplifies their agency by shifting power away from the researcher. The capacity to

contribute, or not to contribute is crucial for socially just reciprocity. Otherwise, research

partners might participate in reciprocal activities motivated only by power imbalances like

coercion and compulsion.

Jessica also works with cultural informants or "cultural liaisons" as research partners in

order to navigate "diverging interests, conflicting values, and different commitment levels, all

can inhibit or restrict the collaborative, reciprocal relationships we hope to establish with

participants" (Kirsch, 1999, p. 27). Here, Jessica discusses multiple collaborative processes with

cultural liaisons that help her participants understand her, as well as help her understand her

participants.

JESSICA: Having a cultural liaison, not just a translator but someone who partners with

me to put their knowledge and expertise alongside my ignorance is so helpful. I always

hired someone who seems to have a personal passion for, or connection to the research

because I feel like sharing some values with the people you're working with goes a long

way toward smoothing out rough edges… Ideally, I partner early enough in the process

that some of this collaboration back and forth with, for example, a partner organization,

they [liaison] can help us with. When I say something that I thought was being polite, but

it turned out to have ticked people off because it wasn't appropriate. I didn't know, but

they [liaison] can help me to navigate that or ideally headed off but sometimes you just

grew up and you're ignorant…

Just as David located a research partner with cultural capacity, Jessica does so as well. However,

the cultural liaison not only works on behalf of participants, but also builds Jessica's cultural

capacity. Because Jessica considers linguistic and cultural diversity an asset to her research, this

cultural liaison not only aids her in translation, but helps her localize consent practices for

specific communities, fix any misunderstandings, and codes participant responses with her.

Importantly, David and Jessica both acknowledge the capacity of these research partners and

contribute to their capacity by paying them for this labor.

When structuring opportunities for reciprocity with research partners, participants in this

study located individuals like cultural liaisons who contributed their capacity (cultural and

intellectual) to build researcher capacity (cultural and intellectual) which resulted in researchers

acknowledging participants capacity (cultural and intellectual) thus structuring opportunity for

participants and researchers to contribute their capacities to each other, if they so choose.

However, researchers in this study frequently identified constraints (like money to pay research

partners) as one of the most significant challenges to their work. When researchers do not have

the capacity to partner with cultural liaisons, they build their cultural capacity by contextualizing

their processes in specific communities across research settings.

Structuring Reciprocity Across Research Settings

A research setting is a location where research occurs *in situ*, or where the act of research

takes place (Miles & Huberman, 1994; Creswell, 2014). A research setting is not to be confused

with a research site, which is the location or context like "homes, classrooms, organizations,

programs, or events" for observing phenomenon (Creswell, 2014, p. 170). As discussed in the

previous chapter, researchers and their processes move across contexts (local and international,

public and private, institutional and disciplinary, etc), which frequently require different types of accommodations.

Technical communicators are familiar with contextualizing technologies (Sun, 2006, 2012) and meanings for specific communities (Gonzales & Zantjer, 2015), or *localization*. While this practice typically refers to technology design, Shivers-McNair and San Diego (2017) theorized inclusion as an active localization practice:

> Key to this [inclusion] work is exploring local contexts and balancing one's own commitment to advocacy with the goals and commitments of the communities engaged, which, in turn, can lead to sustainable progress toward not simply describing but redressing inequities (p. 98).

When conducting social justice research, participants in this study explored a variety of contexts related to their research site in order to determine "the fit of potential courses of action (including inaction)" that would best allow them to structure reciprocity (Walton, Zraly, & Mugengana 2014, p. 46).

> DAVID: The first week or two, is doing, I mean, you spend those weeks doing the background style, right, getting to know people, meeting with the different stakeholders involved. So if it's a community that is very traditional, you go out there and talk to a traditional leader, you talk to the elders, the elders have to take you through whatever their process is and all that, you get familiar with the security issues in the area. There're some cultural things that you have to get to know. Of course you get to know some of these before you go back in. As soon as you get into the community or the area, you know all these things, that takes some time, right, and the actual "research project" begins outside that, right?

Here, David moves across multiple settings that are "outside" of the research project: stakeholder meetings, a visit to a community leader, a visit to community elders, and surveying the geographic community. Throughout this movement, David explores (gets to know) information that builds *his* capacity for the research project, while simultaneously acknowledging the multiple capacities (intellectual, cultural) of the communities he is meeting with and may or may not interact with during the research project. In this sense, David practiced inclusion as localization, and in doing so structured opportunities for reciprocity.

In addition to exploration, Shivers-McNair and San Diego (2016) also identify balancing research commitments to advocacy and community goals as important to inclusion as localization. Researchers in this study experienced this balancing when structuring opportunities for reciprocity across research settings. For example, Sarah shared this story with me about meeting a potential research partner for the first time and negotiating not only how Sarah would conduct research in a site, but how Sarah would contribute and build capacity.

> SARAH: I finally met with [potential partner] and I told her everything about my ideologies towards language and blah blah blah. And she was like, 'This is great, but you can't just come in here and observe us. That's not natural. That's not how we work. We are a family. We are a team and if you want to be a part of us you have to be a part of us.' And she decides to hire me to coordinate the project manager there. And that's how I came into it was by the grace of her, really. But it's completely changed the way I view myself as a researcher, too.

Here, Sarah structured opportunities for reciprocity in a few ways. First, Sarah acknowledged the capacity of her potential participant to codetermine her work in the organization, then adapted her role as a researcher. Powell and Takayoshi (2003) cite adopting roles participants create as

foundational to ethics of reciprocity: "research participants should be allowed to construct roles for themselves and us in the same way we construct roles for them. Further, we should be willing to adopt the roles created for us at least some of the time…" (n.p.). By adapting her role, Sarah acknowledged not just the capacity of her participant, but the capacity of the organization with its own resources, labor, and needs.

Next, Sarah mobilized her skills as a technical communication practioner to build capacity for her participant's organization as an inquiry-driven research activity. Sarah frequently discusses how much localizing her role as a researcher 1) showed her moments she would not have seen in one interview 2) developed not just one reciprocal exchange, but structured opportunities for reciprocity beyond her research process.

Structuring Reciprocity Through Research Processes

While there is no concretized process of research for social justice or research writ large, the abstracted process can be understood as "the evolving nature of events undertaken by the actors within the setting" (Creswell, 2014, p. 239) or a set of stages including "conceptualization, design, conduct, interpretation, and dissemination" (Walton, Zraly, & Mugengana, 2014, p. 48). Considering activities within the research process is important to understanding reciprocity because inquiry itself functions by soliciting information from individuals in order to make claims and contribute to disciplinary knowledge.

Although researchers in this study were adamant about listening, they also charged themselves with contributing to their partners' capacity and build future capacity through their research processes. When researchers in this study did structure opportunities for reciprocity, they had to negotiate tensions about the ideological nature of inquiry and the purpose of analysis.

DAVID: Sometimes you collect a lot of data and then you decide which one to

choose from, which data will help you address your research question, or which

data will be more useful or benefits the participants a bit more. Those are choices

that you make.

As I have illustrated in this chapter, David structured opportunities for reciprocity across his

research partners and research settings, but here he considered data analysis as a vehicle for

reciprocity. Durá (2016) writes about these kinds of analytical tensions in social justice research

by theorizing positive deviance (asset-based approaches) and negative deviance (deficit-based

approaches). A negative deviance approach would analyze problems and "identify barriers and

import best practices from other contexts" while a positive deviance approach "focuses on what

is working—what people are doing right without outside help…and [amplifies] asset-based

narratives" (Durá, 2016, p. 59). These are the choices researchers make, as David says, which are

ultimately enacted through research processes.

Some critics of asset-based approaches, social justice research, and qualitiative research

argue that these practices lack rigor and validity. However proponents of community-based

research, for example, argue that participatory approaches increase validity and rigor:

shared power can enhance research validity by facilitating community

participation in the design and testing of research instruments to improve data

collection tools, increasing community trust and ownership to optimize participant

recruitment, and fostering community involvement in interpretation of findings to

increase accuracy with respect to cultural context (Walton, Zraly, & Mugengana,

2014, p. 48).

Some researchers, myself included, have goals of sharing every possible part of the research

process (collection, analysis, publication) with participants. However, the capacity or available

means of research partners are not always considered when researchers unintentionally foster massive amounts of labor onto participants.

In structuring reciprocity in her research processes, Sarah acknowledged research partners intellectual capacity by using that capacity in her research analysis. Instead of asking her participants to read her data, Sarah structured opportunities to integrate her research findings into accessible and approachable events in communal spaces. For example, the manager at her research site asked Sarah to do a presentation to an incoming group of trainees. This presentation, however, was not a one-sided session where community members only learned from Sarah. She also asked her audience members to give her feedback on naming the practices she identified, and to help her refine her coding schemes, all of which happened in a 1 hour and 15-minute session that community members at her site were being paid to attend, allowing them to receive compensation for their labor.

> SARAH: Participants have ownership not only over their stories, but over analysis, collection, publication--not just in terms of consent, but in terms of having valuable perspectives and expertise' to add. The [analysis] methods stayed the same, but the sites changed, and the objectives changed based on whatever was needed in that context.

In this instance, structuring reciprocity increased the rigor and validity of her research processes by acknowledging and using the intellectual capacity of research partners to perform analytical coding. Additionally, this process contributed to and helped build the capacity of her research partners by fully incorporating and sharing back knowledge work with participants in ways, like a training presentation, they can use (Moore & Elliot, 2016).

Conclusions

Focusing on structuring opportunities for reciprocity contributes to disciplinary discussions and practices of social justices by reframing reciprocity from a mainly a material exchange that is predicated on extensive relationships to a value to promote through interrelated actions of capacity building: acknowledging, contributing, using, and building. I found that these actions are intertwined with themes of inclusion, public action, and agency that I identified in chapter 3, thus contributing to social justice.

However, structuring opportunities for reciprocity is not a practice that can guarantee inclusion, agency, social justice, or even reciprocity. In technical communication research, "our roles as professional communicators [are] imbricated in political, ethical, economic, and ideological networks" (Durá, 2016, p. 60) as are the communities researchers move through. Navigating political, ethical, economic and ideological tensions adds complexity to social justice research. Specifically, can or should researchers with commitments to social justice collaborate with communities that oppress and disempower? Additionally, should participants with ideologies that oppress and disempower participate in research processes as exemplified by PD?

> VINCENT: But I don't know that a view of social justice means that we must compromise with every position we find ourselves in conflict with. I can't really imagine compromising with fascists or neoliberal capitalists. However, I do think the view I'm taking requires me to work hard to understand the thinking of those perspectives and the socio-economic contexts in which those perspectives have come to seem good and true to their adherents.

This is just one challenge researchers in my study are still working through. In the next chapter, I focus on more of these limitations and challenges as I conclude this study and share

implications for research and teaching of technical communication.

CHAPTER 5: CONCLUSIONS AND IMPLICATIONS

The impetus for this research is two-part: the need for tacit disciplinary (not necessarily applied professional) practices to be made visible and the need for technical communication to foster, sustain, and enact socially just practices. In Chapter 1, the story of ATTW's response to the 2017 NAACP travel advisory in Missouri served as an example of the overlap of these concerns: social justice scholarship was supported by socially just practices. Because knowledge-making practices of a discipline are located and made transparent in research actions (Moore and Richards, 2018; Sullivan and Porter, 1997), studying the actions (or practices) of technical communication scholars contributes to disciplinarity by making visible that tacit knowledge.

Disciplines do not just make knowledge, but also act through practices that have material, social, economic, and embodied consequences (Jones and Scott, 2017; Eble and Haas, 2017). At the same time, disciplines like technical communication need to continue to investigate and enact social justice *as* a disciplinary practice. Social justice is not new to technical communication, especially as technical communicators are continually positioned as mediators between individuals, students, citizens, users, and publics, and technologies, communication processes, complex information, policies, and institutions. Thus, I framed social justice as a set of research practices that cross methodologies, methods, and epistemologies as well as contexts (institutional, disciplinary, local, community), and actors (participants, stakeholders, communities). Articulating knowledge-making practices connected to social justice research then can provide a framework for more inclusive disciplinary practices.

The purpose of this study was to identify disciplinary activity and practices related to research and social justice from scholars in technical communication. As scholarship in technical

communication has shown, social justice means different things to different people. However, it is a useful term to embrace a range of research approaches that share some common commitments. In my study of disciplinary activity and researcher narratives, I found that technical communication research related to social justice is committed to practices of agency, inclusion, and public action. My analysis shows that technical communication scholars make knowledge and enact social justice by amplifying agency through their research. Based on the themes I identified in the data visualizations and researcher narratives I analyzed, I modeled advocacy and reciprocity as two component practices through which technical communicators amplify agency.

Summary of Findings

Findings from this study indicate that there is no single methodology, method, site, or practice that encapsulates social justice in technical communication. There is conceptual diffusion and pluralism, which provides opportunities for scholars across epistemologies and ontologies to participate. There is, however, a set of commitments that serves as the touchpoints for social justice in technical communication. The first major finding of this study is that technical communication scholarship related to social justice is committed to promoting agency, inclusion, and public action. In scholarship, these disciplinary commitments can be understood as:

- inclusion: processes and actives that value and/or acknowledge experiences of peoples across racial, national, ethnic, cultural, queered, gendered, dis/abled identities
- public action: processes and activities that facilitate change along civic and public realms toward a democratic outcome
- agency: processes and activities that define problems/generate solutions based on

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consequences of communicative and/or technological meditations

I found that technical communication scholars who do work related to social justice amplify agency by practicing advocacy and reciprocity in their research, and in the communication of that research. Thus, scholars can practice social justice as disciplinary knowledge making when they intentionally integrate practices of advocacy and reciprocity across the arcs of their research processes.

Scholars in this study practiced advocacy by intentionally enacting, promoting, or facilitating inclusivity across research settings, throughout research processes, and with research partners. Advocacy is not a practice separated from scholarship for my participants. Instead, advocacy serves as a generative, inquiry driven practice. For example, my participants practiced advocacy in their research processes by seeking inclusivity as a research goal, designing reflexive projects, and taking responsibility for the consequences of executing and sharing their research. These research practices contribute to disciplinary knowledge making by validating and promoting diverse knowledges[24] and increasing the complexity of technical communication, through which researchers are able to change the field and change communication practices.

Disciplinary and local institutional settings offer challenges to practices of advocacy, specifically when my participants adapted research processes to validate nonwestern knowledges while simultaneously accommodating research results so that audiences who value more traditional research practices would acknowledge them. These are spaces that my participants must engage with in order to retain or advance their careers and make contributions to knowledge within the field. Thus, I found researchers in this study work *from* their institutional involvement and do not simply work *at* institutions. Part of advocacy as a research practice

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[24] Jones (2016) says advocacy in technical communication "empowers our scholars but also values and legitimizes other perspectives and experiences"

means my participants also work *on* institutions and disciplines, given that their explicit motivation is to redress existing institutional goals or priorities.

Advocacy alone, however, does not encapsulate socially just research. I also found that my participants practiced reciprocity in their research by structuring opportunities to exchange knowledge, labor, and resources with participants, as well as stakeholders like local communities, organizations, and institutions. Critical to this practice is that reciprocity is not a guaranteed outcome of social justice research but an opportunity. Thus, my participants reframed reciprocity from a mainly a material exchange that is predicated on extensive relationships to a value to promote through interrelated actions of capacity building. I found that these actions were intertwined with themes of inclusion, public action, and agency. Because researchers in this study move across research settings, work with a variety of individuals, and create processes to shift power, structuring opportunities for reciprocity involved the following interrelated actions:

1. Acknowledging capacity: learning about and valuing the ability of individuals (researchers, participants, and their related communities) to contribute to research through their available means (e.g. knowledge, resources, and labor)

2. Contributing capacity: making individual capacity available for collective action, not only action in a research process

3. Using capacity: inclusively engaging and applying contributed capacity, not only action in a research process

4. Building capacity: mobilizing capacity to amplify the agency of individuals (e.g. participants, their communities)

My findings contribute to the field of technical communication in general, but especially technical communication focused on social justice, in three ways:

1. they amplify theories and concepts of social justice as a knowledge making practices

2. they apply those theories of social justice across empirical research methods

3. they connect those practices back to theories of social justice and technical communication to illuminate challenges of praxis

Implications

The findings of this study contribute not only to the case that technical communication can and does engage with issues of social justice, but also how technical communication scholars might do so. Researchers who do work related to social justice do not necessarily study social justice as a phenomenon, instead they *practice* social justice through research by amplifying agency through their research, their work as technical communication practioners, as teachers in classrooms and as community members. Researchers in technical communication can practice social justice not just as an intervention in oppression but as *amplification of justice*. In the following sections I offer implications for researchers and teachers of technical communication

For Technical Communication Researchers

As I mentioned above, there is a difference between social justice as a phenomenon and social justice as practice. For individuals and programs who might conflate the two or feel that social justice is a content area that 1) is not their work and/or 2) is not technical communication, I would further elaborate that there is a difference between doing social justice research and doing social research justly. My findings show that researchers with a variety of epistemological and methodological stances can practice social justice in their processes, just as any research can (and should) practice ethical research. Justice is *a part* of technical communication that researchers are culpable to whether they identify social justice as a content area or not.

For researchers wanting to practice social justice in and as research, attention to inclusivity must be embedded end-to-end in the research process. Based on my findings, figure x below offers an example of what practices could be applied during the research process. Practices of advocacy and reciprocity are not separated, but instead serve as catalysts for each other. For example, when researchers practice advocacy by validating diverse knowledges in the
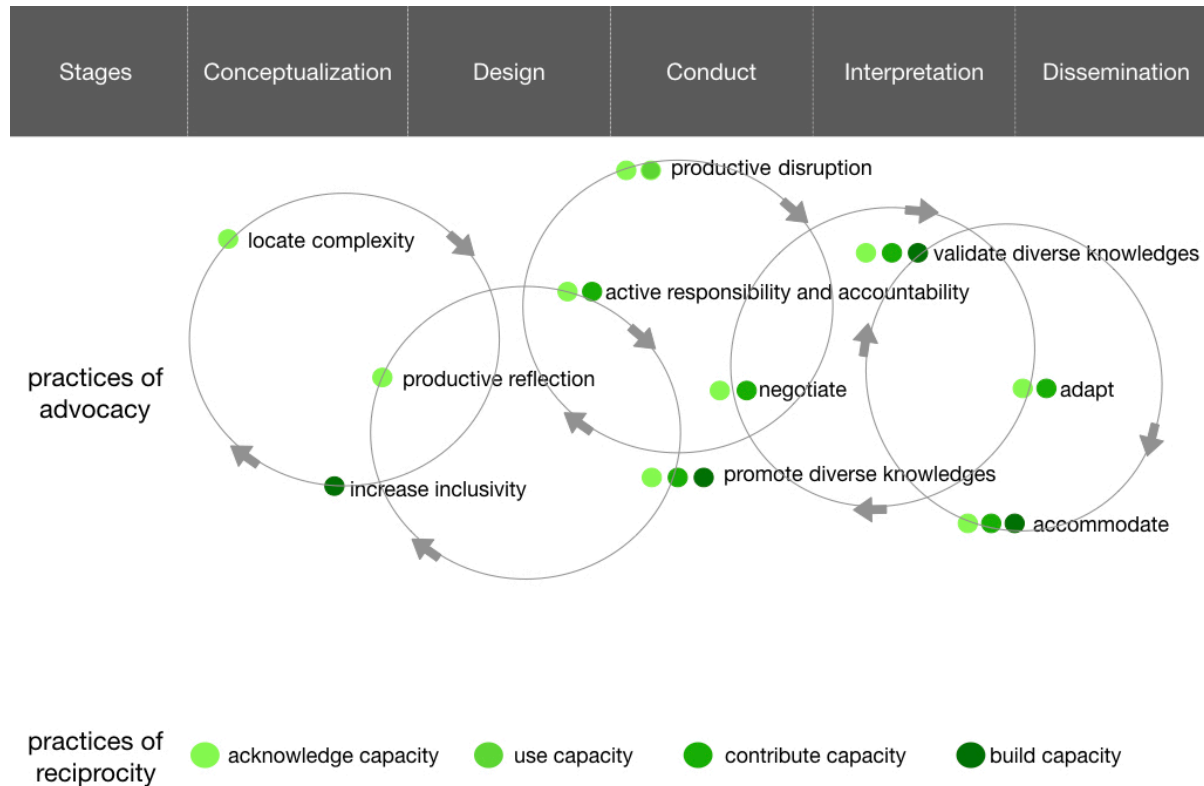

Figure 8. Locating practices of advocacy and reciprocity across the stages of research

interpretation and dissemination of their research, they also acknowledge participant capacity (e.g. diverse knowledges), contribute their own capacity (e.g. through the writing of findings, for example), and build capacity (e.g. accommodate findings with participants to apply for a grant).

However, there is not one correct sequence. Depending on a researcher's methodology, methods, site(s), participants, these practices can and will change. What will remain the same is the emphasis of a proactive, just, and iterative process rather than a reactive process.

In order to practice social justice research, my participants frequently mobilized their professional skills as research methods. Because professional practices like localization, human centered design, and user experience share concerns with social justice like context, agency, and accessibility (Durá, 2016; Shivers-McNair & San Diego, 2017; Walton, Zraly, & Mugengana, 2014), participants in my study used these methods to collect and analyze data in their academic research. Although technical communication frequently borrows research methods from other disciplines, applying professional practices to academic research would

1. provide an approachable entry point into social justice practices
2. result in knowledge-making across academic, industry, and community contexts
3. increase the relevancy of academic research to professional contexts
4. value practioners' ways of knowing

For Technical Communication Programs

These findings have implications for technical communication programs and teachers. First, these findings provide a set of practices related to knowledge-making, that can be applied beyond research. The initial set of commitments (inclusion, public action, and agency) can be helpful for programs to reimagine their role in relation to students, faculty, colleges across the university, and the communities (physical and digital) around them. Commitments to inclusion and public action may appear in university-level strategic plans or core value statements, but programs can utilize these commitments, as well as increasing agency, to expand their curriculum. As programs proliferate and require "the studying of more types of people, machines, and activities" (Johnson, Simmons, and Sullivan, 2018), these practices illustrate that when inclusion, public action, and agency are intentional and explicit, learning design can

contribute to social change. For example, programs in technical communication that make these commitments explicit in curriculum and apply these practices to classrooms as mentors and in administration, can create an educational pipeline of inclusivity. Technical communication can be taught as a holistic endeavor, through experimental learning, so that students can transition from programs to workplaces equipped with the competencies necessary to write, design, and code inclusive texts.

Limitations and Future Directions

In chapter 3, I shared Jessica's description of social justice. She imagined the field as a huge, seemingly immovable boulder and thought of herself and other scholars struggling together to try to move that boulder. One of the limitations of this research is bound within the scope of its initial goal: to make visible a set of commitments and practices of social justice. The scope of this research was narrowed to *social* justice based on the disciplinary turns, events, and scholarship mentioned in chapters 1 and 2. However, there remains a need in technical communication to wrestle with the concept of *justice* alone. As I mentioned in chapter 4, there are multiple analytical frameworks that speak to inclusivity, oppression, advocacy, and power. However, technical communication has not articulated the intersections of these concepts toward a definition of justice in general, or in the field specifically. These results of this kind of articulation work would not be conceptual alone. Instead, articulating and rearticulating justice in technical communication would validate and expand our notions of disciplinary knowledge and activity. For example, the community-based work that my participants perform as a means to produce scholarship could be co-validated as scholarly activity in addition to service.

Additionally, there is a danger that these findings will be interpreted as a single process, with discrete steps, resulting in social justice when completed. Social justice may appear to be an

outcome, because there are material, social, economic, and intellectual consequences involved in this work. However, social justice is not an outcome, but a complex struggle that my participants exist in and work through, with no discernable progress made visible to them except, perhaps, that more scholars join in the struggle.

The motivation behind social justice as a collective struggle may be considered a second limitation to this research—in the sense that my focus was only on social justice practices and not on oppressive research practices or even researchers who study oppression rather than justice. The design of the study and the goal of this study was structured to make visible a set of commitments and practices, to create a baseline for the field to refer to. In this sense, my stance as a researcher was asset-based rather than deficit-based. Although researching oppression is valuable in its own right, my participants frequently spoke of oppression—in their research, in their workplaces, in their classrooms—then *acted* through research.

An asset-based stance does not mean that every research question is answered, or even that the answers found through research are fixed. Instead, leaving this study I have more questions and research projects that might engage these questions. For example, I worked with individual researchers to identify their research practices. As I mentioned in Chapter 1, researchers do not act independently of disciplinary discourses, and thus individuals do not act in a vacuum. With this relationship in mind, it would be useful to scale from the individual to the organizational. Specifically—how can technical communication programs and organizations or businesses related to technical communication create, foster, and sustain socially just practices? The results of such research would be two-fold: first, identifying the social justice practices and commitments of organizations and programs would provide local perspectives on the role of technical communication in social justice and second, working with practioners would create

opportunities for experiential learning for students.

Conclusion

Scholars in technical communication perpetually call each other to act for justice in "this moment" because of the mediating role of technical communication. It is now, and has been, the time for collective action. As technical communication has made the social justice turn (Eble and Haas, 2017), there is more work to do and more room here at the boulder, and many other boulders, for those willing to join the struggle.

APPENDICES

Appendix A. Research Participant Information and Consent Form

You are being asked to participate in a research study. Researchers are required to provide a consent form to inform you about the research study, to convey that participation is voluntary, to explain risks and benefits of participation, and to empower you to make an informed decision. You should feel free to ask the researchers any questions you may have.

Study Title: Culturally Inclusive Research Methods in Technical Communication
Researcher and Title: Heather Noel Turner, PhD Candidate
Department and Institution: Writing, Rhetoric, & American Cultures Department, Michigan State University
Address and Contact Information: 434 Farm Lane, Bessey Hall Room 253, Lansing, MI 48824 | heathno@msu.edu

1. PURPOSE OF RESEARCH

You are being asked to participate in a study of the research practices, tactics, and commitments of technical communication scholars who conduct social justice research. From this study, I hope to learn methods for designing and implementing culturally inclusive research studies in technical communication research in order to visualize models for future technical communication research.

You have been selected as a possible participant in this study because of your active participation as a member of the Association of Teachers of Technical Writing (ATTW), your scholarly publications and/or presentations at ATTW conferences. In the entire study, 5 individuals are being asked to participate. Your participation in this study will take no more than 30 minutes for the online survey, 45 minutes for the follow up interview, and 90 minutes for the focus group, for a total of 165 minutes.

2. WHAT YOU WILL DO

You will be asked to participate in 1 online survey, 1 audio recorded interview, and 1 audio recorded focus group. You will receive full transcripts and all subsequent findings before any information is shared by the PI. You have the authority to redact, modify, or withdraw any/all of your responses. You also have the authority to change the findings based on your comfort.

In the online survey, you will be asked questions about your research methods, processes, and your demographic information.

In the interview, you will be asked about specific research projects you conducted and your answers to the online survey.

In the focus group, you and the other participants will be shown a tentative model of research practices, tactics, and beliefs, and will be asked about it.

3. POTENTIAL BENEFITS

Your participation in this study may generate more reflection and understanding of your research practices, as well as contribute to the understanding of research practices in the field of technical communication.

4. POTENTIAL RISKS

Because these interviews are centered around your research practices, there is a direct risk in discussing your work. In order to mitigate this risk, findings from this research will not be presented in individual case studies, which would make you easily identifiable. Instead, findings

will be presented as aggregated themes across the participant group. If you are directly quoted, you may choose a pseudonym that you deem appropriate in order to maintain your privacy. If at any point in the study you are uncomfortable or wish to withdraw, you may.

5. PRIVACY AND CONFIDENTIALITY

Your privacy will be maintained based on the utmost attention to your level of comfort and what measure you deem acceptable and all information about you will be kept confidential to the maximum extent allowable by law. All conversations will occur in private (with you and the PI) unless you consent to other settings. If you choose to participate in a digital video conference, the discussion will be collected via the internet, but your IP addresses will not be recorded.

The data for this project will be kept confidential—meaning the data is identifiable by the PI only. Only primary investigators and the MSU Institutional Review Board will have access to the data, which will be kept on secured MSU servers.

The results of this study may be published or presented at professional meetings.

6. YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW

Participation is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. You have the right to say no at any time. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time. You will be told of any significant findings that develop during the course of the study that may influence your willingness to continue to participate in the research.

7. CONTACT INFORMATION

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact: Heather Noel Turner College of Arts and Letters 253 Bessey Hall East Lansing, MI 48824 517-930-5250 heathno@msu.edu

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 408 West Circle Drive, Olds Hall Room 207, MSU, East Lansing, MI 48824.

8. DOCUMENTATION OF INFORMED CONSENT.

Your signature below means that you voluntarily agree to participate in this research study.

_____   _____
Signature   Date

 I agree to allow my identity to be disclosed in reports and presentations.

         ☐ Yes   ☐ No   Initials_____

Interviews will be recorded with audio. The files will be stored on a secure MSU server.

I agree to allow audiotaping of the interview.

☐ Yes ☐ No Initials_____

You will be given a copy of this form to keep.

Appendix B. Interview Instrumentation

The following 30-60 minute interview will be conducted in private MSU rooms, or online via a secured video conference. The interviews will be audio recorded with permission of the subjects. These interviews are semi-structured, but example questions include:

Topic: personal/intellectual history

How did you get to technical communication?

How would you describe your research?

How do you understand social justice?

Why is that important to you?

How did you learn the methods that you use in your research?

Who are your research models?

How would you describe your purpose as a researcher?

How do you practice cultural inclusivity in your research?

Topic: research design, data, site, technological tool, other decided by participant

Can you tell me about a research project?

What inspired you/what was the impetus for this research?

How did you plan your project?

What considerations did you make for participants/yourself? During the project? After?

In publishing?

What were some of your successes?

What challenges did you face?

What were your failures?

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