Chapter 1. Lessons Learned from an Early Career, Five-Year Project with Digital Methods: Accounting for Positionality and Redressing Injustice

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> Technology is not just what does the work, it is the work—and that
> work relies on an ongoing relationship between bodies and things.
>
> *– Angela Haas*

I begin with Angela Haas' reminder that technology is relational ("Race" 291), because this chapter is about the dynamic relations of bodies and things in my engagement with digital research methods as an early-career scholar over a five-year period, from designing my dissertation project to preparing my book for publication with digital components. I also begin by sharing that I am a white, cisgendered, able-bodied woman with the socio-economic privilege of being employed as a tenure-track assistant professor at a large public university, because my multiple dimensions of privilege imbue the dynamic relations of bodies and things in my lived experiences and in the stories I tell. In other words, as Black feminist and Indigenous scholars have long argued (Jones, Haas), I cannot talk about technologies without talking about them in relation to bodies, things, contexts, histories, and practices.

In this chapter, I critically retrace my steps and relations through the last five years as I worked on an ethnographic case study of a makerspace using digital methods (primarily video and photography) as a white, cisgendered, able-bodied woman working as a graduate student and then as a tenure-track faculty member in rhetoric and composition programs in English departments. To resist dominant practices of normalizing the experiences of multiply privileged people in our scholarship and practice, Natasha Jones, Kristen Moore, and Rebecca Walton call for us to examine and account for the 3Ps—positionality, privilege, and power—in our work (220). Therefore, in my retracing, I examine the intersections of my individual privileges with institutional privileges and privileged discourses (both in rhetoric and writing and in the maker movement) as I carried out my work, encountered challenges, and negotiated publishing.

I account for the intersections of privileges and digital technologies and methods in my work and experiences as a white, cisgendered, able-bodied woman in order to create a little more space to resist and redress the ways I (and people

like me) benefit from white supremacist, ableist, heterosexism in our engagement with research and technologies, to the exclusion and harm of others. To do this accounting and resisting work, I trace two strands in my work and experience that remained more separate in my thinking and in my practice than they should have, and for longer than they should have:

1. Addressing how relatively recent digital technologies are privileged in the maker movement and in academic spaces, and
2. Using digital tools as a technique for storytelling and locating the embodied researcher gaze.

I trace these strands over a five-year period, from navigating newness and discomfort at the beginning of a project, to navigating attitudes toward technologies in research as well as in the academic job market and publishing process. I conclude with a reflection on learning relationality in research in which I honor the labor of the people from whom I have learned, and I offer takeaways for engaging with digital technologies and methods in research, in mentoring and hiring, and in publishing.

But first, I want to situate my approach to analyzing and telling what I share here in relation to traditions of autoethnography, critical discourse analysis (CDA), and narrative inquiry. As a white researcher, I have a necessarily uncomfortable relationship to autoethnography and to ethnography, which, as Margaret Somerville explains, "emerged in parallel to the colonization of many [I]ndigenous peoples of the world. By the mid-1980s critiques were mounting about the colonizing nature of anthropological knowledge, and the impossibility for the colonizer to represent the lives of the colonized other. In response to the recognition of complicity in the processes of colonization, a fundamental critique of ethnographic practice emerged. The 'death of ethnography' was announced" (10). And yet, as Leigh Patel observes, "even 30 years after the death of ethnography was proclaimed (Somerville, 2013), problematic patterns persist in white researchers pursuing and speaking of research about racially minoritized populations, to presumably white audiences" (55). Patel attributes the continuing of colonizing research practices to the fact that a "privileged population [an upper middle social class that has racialized protection] persists in control of the uppermost spaces of the academy" (55). I am part of that privileged population, and despite my efforts and intentions to resist colonizing research practices, I still participate in and perpetuate them.

As some researchers began seeking to resist or mitigate the colonizing gaze of ethnography toward the end of the twentieth century, a "tradition of auto/ethnography sprang from this response" (Somerville 10). For both white researchers and Black, Indigenous, and people of color (BIPOC) researchers, a critical approach to autoethnography can work against what Steven Alvarez describes as "the colonizing gaze of the decontextualized researcher and the accompanying rhetoric that normalizes a 'universal' viewpoint" (86). Alvarez demonstrates that for BIPOC researchers and communities, autoethnography serves the important function of centering marginalized voices and perspectives. For white researchers and communities like me,

autoethnography can serve as a method for critically examining positionality, privilege, and power, as education scholars Julie Pennington and Cynthia Brock model in using autoethnography as a tool for white teachers to critically engage their racial identity. However, as Somerville notes, autoethnography "has been criticized for its inward looking focus" (11), and as a white researcher, I am mindful that simply turning my gaze to my own experience is not inherently just or useful, especially if it only serves to re-center my already-privileged experiences and perspectives.

Therefore, while my approach is informed by the commitment of critical autoethnography to locate and resist "the colonizing gaze of the decontextualized researcher" (Alvarez 86), I also draw on practices from CDA to interrogate the ways that power circulates in and through my actions and experiences. CDA "starts from prevailing social problems" rather than "purely academic or theoretical problems" and "critically analyses those in power, those who are responsible, and those who have the means and the opportunity to solve such problems" (van Dijk 4; qtd. in Wodak 2). In this case, the prevailing social problem is the fact that white academics like me move with unearned ease in research, publishing, and other academic spaces (and, indeed, in all spaces), to the exclusion and harm of BIPOC and multiply marginalized academics and communities. By critically analyzing my own discourses as well as the discourses I engage, I am acknowledging my responsibility for and my opportunity to solve the problems I describe. But here again, there is a danger of an overly-individualistic focus.

This is why I am ultimately guided by Natasha Jones' decolonial approach to narrative inquiry. Jones draws upon and critically resituates Michael Connelly and Jean Clandinin's definition of narrative inquiry as "'the study of experience as story' (375)," noting that:

> [t]hough the term narrative inquiry was coined in 1990, as Jo-Anne Banks-Wallace notes, stories have long been a way of making meaning. In fact, oral storytelling traditions that grounded African, African American, and Indigenous communities' ways of being, understanding, and knowing (see scholarship by Wilson; Smith; Banks) are reflected in narrative inquiry as a methodological framework. (519)

In addition to decolonially resituating the tradition of narrative inquiry, Jones also decolonially resituates Connelly and Clandinin's three commonplaces of narrative inquiry—place, temporality, and sociality:

> The 'place' commonplace engages with the way that narrative and experience are geographically, physically, spatially, imaginatively, and ideologically constructed (like boundary areas and contact zones). 'Temporality' as a commonplace asserts that events are always shifting and everything is always in transition and in process. Finally, the 'sociality' commonplace recogniz-

> es the collective over the individualistic. Narrative inquiry ac-
> knowledges complex, pluralistic, and contextual realities—like
> those that we find in boundary areas and contact zones. (520)

It is important to note that, as Jones argues, narrative inquiry "calls for us to listen and privilege the particular and lived experiences, especially those of the multiply marginalized" (520). Because my experiences are not marginalized, it is even more important for me to follow Jones' exhortation to acknowledge and cite narrative traditions beyond relatively recent, white, Western approaches and to avoid an individualistic re-centering of my experiences (which also feeds myths of meritocracy) by instead contextualizing myself and my practices in relation to bodies, systems, traditions, and things.

I also want to acknowledge that the (more or less) linear, chronological approach I take in this chapter is only one model. For example, highlighting Indigenous practices, Gabriela Raquel Ríos (2015) models "land-based (or spatial) rather than temporal" meaning making (68). And, as Jones shows, even a temporal approach must account for the fact that "events are always shifting and everything is always in transition and in process" (520). I have chosen a more-or-less temporal approach here because as a graduate student and now as a tenure-track faculty member, academic clocks—years of funding for graduate work, years on the tenure clock—have shaped how, where, and with whom I engage in digital research methods. I also chose this temporal account to complement and contextualize other accounts of digital methods I have published that focus on methods used in a particular place and moment ("Making Knowledge") and on a particular digital technique ("3D Interviewing"). And while my book (*Beyond the Makerspace*) also offers a (more or less) temporal account of my methods, it focuses mostly on the context of the longitudinal study and less on the context of engaging digital and qualitative methods as an early career scholar navigating graduate work, the academic job market, and the tenure process. Therefore, in tracing my engagement with digital methods—especially video recording and still photography—from the beginnings of a dissertation study in 2015 through preparing a book for production in 2020, I reveal and critically examine how my practices and philosophical orientations changed over time and in response not only to my relationships with participants and my engagement with scholarly conversations; but also to my experiences navigating professional processes like preparing and defending a dissertation, going on the academic job market, and publishing articles and a book.

Navigating "Newness" and Discomfort at the Beginning of a Project

Digital methods and technologies were both the subject and the means of my project from its beginnings, though the relationship between the ways they were both the subject and the means was not always as clear to me as it should have

been. Specifically, digital methods and technologies were remediating, literally and figuratively, both the subject and the means of my research in two strands that felt separate at first, but that I now realize are inextricably entwined:

1. The privileging of relatively recent digital fabrication technologies (like 3D printing) in the maker movement and in academic spaces, and
2. The use of researcher point-of-view (POV) video and photos as a reflexive ethnographic technique for storytelling and locating the embodied researcher gaze.

The first strand—the privileging of digital fabrication technologies like 3D printing—is what brought me to this project in the first place. I first heard the word "makerspace" in a conversation at the 2014 Cultural Rhetorics Conference with David Sheridan. Scholars like Sheridan were already making connections between the increasingly widespread digital fabrication technologies at the center of the maker movement (such as 3D printing) and writing studies. As Sheridan argues, describing projects that included 3D printing, fabricated rhetoric and "three-dimensional compositions shape attitudes, beliefs, values, behaviors, and identities—all of the 'stuff' of culture" and thus engaging critically with 3D rhetoric "potentially increases our power to shape culture for the better" (262). In 2014, I was new both to the maker movement and to conversations about 3D rhetoric and about multimodality more generally. I perceived that those conversations were increasingly moving to the mainstream (read white-stream) of writing studies—even though scholars like Adam Banks and Angela Haas have shown us that multimodal making practices like remixing, grounded in the practice of Black DJs (Banks *Digital*), and hypertext, practiced in Indigenous wampum belts long before being "invented" by Westerners (Haas "Wampum"), long predate composition studies' interest in them and are often harmfully appropriated and touted as "new" in white/Western-dominated perspectives.

I felt a mix of unease and curiosity about that "newness" in relation to maker technologies. I was both intrigued by and skeptical of the maker movement's goal to democratize innovation by making "makers" of people who might not otherwise have the training, access to technologies and tools, or inspiration (Hatch). I was intrigued because I heard echoes of that democratizing aim in conversations about relatively new media and technologies in writing studies—for example, in conversations about coding as a fundamental literacy. But I was skeptical because I was quickly realizing that not only was the maker movement itself dominated by men (documented, for example, in a 2015 press sheet from Maker Media and in a 2016 maker survey conducted by Hackster.io), but also, as scholars like Debbie Chachra point out, the very definitions of making privileged by the contemporary maker movement have a gendered history that renders invisible the kinds of making work—like caregiving—traditionally associated with women.

I felt that unease and curiosity when I started visiting a local makerspace in early 2015. When I first visited the Seattle makerspace (located on the ancestral,

traditional, and contemporary lands of the Duwamish and Coastal Salish Peoples) that would become the starting point of my longitudinal study in February 2015, the CEO of the makerspace greeted me warmly and immediately asked, "What do you want to make?" Seeing a 3D printer, laser cutter, and computer-numerical control (CNC) router for the first time all at once, and in a space where I was the only woman, I had no idea how to answer. I was a writer, a crocheter, a hobbyist baker—but I didn't feel like a "maker" in that moment. I left feeling overwhelmed, but also determined to try to understand more about the ways that identifying as a "maker" (or not) in a makerspace was a function of complex relations of bodies, technologies, and practices. In my dissertation prospectus, I wrote the following:

> I want to attend to the ways in which acts of making are acts of mattering. What comes to matter, and what is excluded from mattering, in acts of making? After all, 3D printed objects, wearable electronics, and laser-cut boxes are not the only things made in a makerspace. Machines and tools are made and remade. Networks and connections are made and remade. Meanings are made and remade. Makers are made and remade. Like the increasingly technology-rich, networked environments in which writing is made, makerspaces are sites of entangled making that include words, objects, humans, machines, and connections. Answering the question "what are you making?" (or the permutations of that question, including "what can we make?", "who can make?", and "how can we make?") draws our attention not only to the objects, technologies, and practices of making, but also to the bodies and desires that are made to matter and to those that are excluded from mattering.

My identification as an outsider to the maker movement (because of my gender identity and my lack of experience with digital fabrication technologies) was important not only to my orientation to the privileging of maker technologies as the subject of my project, but also to my orientation to the research methods in my project.

This brings me to the second strand of digital technologies and methods remediating my project—particularly ethnographic methods with which, as I have explained, I have a necessarily troubled relationship as a white researcher. Despite having previously sworn off ethnography, there I was, in 2015, beginning an ethnographically informed case study. I rationalized that my positionality—at once safe and welcome in the majority-white makerspace as a function of my race, yet also uncomfortable in the majority-men makerspace as a function of my gender identity—might allow me to inhabit a critical perspective on the discourses and practices of power circulating in the makerspace and the maker movement. And while I certainly sympathize with the perspectives of women who avoid men-dominated makerspaces (such as the members of a feminist makerspace in

Seattle, not far from the one I studied, that Sarah Fox, Rachel Rose Ulgado, and Daniela Rosner have described), I also came to realize that I underestimated the extent to which my white privilege would mitigate the discomfort I felt from my underrepresented gender identity and lack of digital fabrication experience.

This is, as legal scholar and Critical Race Theorist Kimberlé Crenshaw has been arguing for decades, a symptom of the realities of the layers of discrimination or privilege people experience because of the intersections of their identities ("Demarginalizing"). In a way, my experience—specifically, the way my white privilege mitigated the discomfort of being often the only woman-identified person in a makerspace—is a photo negative of the discrimination experience of an African American woman that inspired Crenshaw's theory of intersectionality. Crenshaw explains that a judge dismissed the case of the African American woman, Emma DeGraffenreid, arguing that because the employer who had refused to hire her had hired other African Americans and other women, DeGraffenreid could claim neither race nor gender discrimination. But, as Crenshaw points out, "the African Americans that were hired, usually for industrial jobs, maintenance jobs, were all men. And the women that were hired, usually for secretarial or front-office work, were all white. Only if the court was able to see how these policies came together would he [the judge] be able to see the double discrimination that Emma DeGraffenreid was facing" ("Urgency"). While DeGraffenreid's identities as a Black woman rendered her doubly discriminated against in a workplace and invisible to a court of law, my identities as a white woman afforded me safety and goodwill in a space where I had no expertise or connections. My presence was never questioned, even though I was not a paying customer nor a contributor to the work of the space, and my utter lack of knowledge about the technologies and processes in the space was met with patience and the benefit of the doubt.

But despite the ways in which my white privilege mitigated my experience from the beginning, in 2015, my discomfort and unfamiliarity in the space were the primary frames for my experiences and interactions. I spent most of 2015 learning how to relate to the people and the digital technologies in the makerspace, and (perhaps ironically, given the preponderance of digital technologies I was observing) relying primarily on pencil and paper for recording my interactions and observations in words and sketches. I did not feel comfortable taking extensive photos or videos when I was still learning how to interact with people without disturbing or distracting them, how to understand what I was observing, and how to know where it was safe to stand and move. But as the months went by and my discomfort and unfamiliarity began to diminish, I began taking more photos and videos to record the ever-changing configurations and interactions of people and technologies in the space, in part because I felt like I had earned enough trust to ask permission to do so, but also because I did not want to lose that unfamiliarity entirely.

Unfamiliarity attuned me to the partiality of my perspective, to resist a decontextualized or omniscient gaze. In the words of Lucy Suchman, whose work I

was introduced to by Angela Haas, I sought a "located accountability": as Suchman explains, "it is precisely the fact that our vision of the world is a vision from somewhere—that it is inextricably based in an embodied, and therefore partial perspective—which makes us personally responsible for it" (96). In that sense, taking photos and videos helped me remember not only what I experienced but also that my experiences were located in my embodied perspective. As I wrote in my dissertation prospectus, "My own involvement—observing, interacting, taking notes and pictures, filming, asking questions, moving around—is not an elicitation of a phenomenon; it is part of the phenomenon."

And just as the locatedness and partiality of my perspective as a woman in a majority (and often entirely) men-identified space had informed my decision to engage in a critically-oriented ethnographic project in the first place, the locatedness and partiality of my perspective also informed my practices of digital video and photography, because I felt like these techniques allowed me to turn a critically informed gaze both on the practices of men in the space and on my own participation in the space. In my use of digital video and photography, I drew on a tradition of visual research methods in rhetoric and writing studies (McKee and DeVoss; Hawisher, Selfe, Berry, and Skjulstad) in my use of digital video and photography. Specifically, I was inspired by Laura Gonzales' work with video to record not only what people said about multimodal writing but also how they gestured and physically engaged. I realized it was important to attend not only to what people said but also to what people did in a makerspace, where rhetorics circulated in words, movements, and objects. And that included my own words and actions (Gonzales "Multimodality"). By the end of 2015, I had begun video-recording interactions with a head-mounted camera to account for embodied interactions, including my researcher positionality. I drew on traditions like "walking with video" in sensory ethnography (Pink) to guide my procedures and techniques for videography, editing, and analysis.

As I describe in my book, the process of recording, editing, and sharing videos in late 2015 and early 2016 (featuring two white men and one Asian American man who were at the time the focal participants in the study)—first with my dissertation committee, then for an article for *Kairos* that I wrote in 2016, and also for academic conferences presentations and job talks I gave in 2016 and 2017—helped me solidify my approach to narrating experiences and interactions in the dissertation and, eventually, the book. Specifically, the videos helped me identify and account for interactions that came to matter (in both a physical and a semiotic sense) over time and in evolving relations of bodies, understandings, technologies, and things. The videos also helped me explain the makerspace to academic audiences, many of whom were unfamiliar with makerspaces. For example, in my dissertation prospectus defense in early 2016, I shared a video I had recorded and edited in late 2015 of a white man makerspace cofounder operating the laser cutter and using his fingertips to flatten a warped piece of plywood on the cutting bed as the machine was cutting it. Most of my dissertation committee

members had not visited a makerspace or interacted with a laser cutter, so the video was a way of inviting them into that experience and further contextualizing my written content. But it became much more than that in our conversation about what happened in that video and how and why I had recorded and selected that specific moment.

I realized that I was struck not only by the risky move itself (it is dangerous for human fingers to be near a laser beam), but also by the reactions to it, including my own, which the camera's positioning recorded. The fact that I knew enough about the laser cutter by that point to know the action was dangerous signified how my understanding of the technologies in the space had grown over that first year in the makerspace. And the fact that the camera, which was mounted on my forehead with a strap, follows my own gaze and stays trained on the laser cutter scene—rather than looking to the group of maker colleagues a few feet away in anticipation of an intervention—signified how my understanding of the people and relationships in the space had grown. I knew that this person's ethos in the space meant that no one would stop him from bending a safety protocol, and I simply carried on with the interview/observation (albeit with some awkward nervous laughter). That video recording—contextualized with my verbal and textual explanations—became an important way for me to situate both the makerspace and my relationship as a researcher for academic audiences. I shared that video in my *Kairos* article, in my research presentations on the academic job market, and eventually in the methods chapter of my book, because it paradoxically both mitigated and reinforced the "newness" and unfamiliarity of bodies, technologies, and relationships in the makerspace.

Navigating Technosolutionism in Research and Academic Processes

As I went on the 2016-2017 academic job market and then submitted a book prospectus and draft in 2018, the digital videos and photography in my project also took on another function: making me and my work marketable in digital rhetorics and technical communication spaces. As Amy Goodburn, Donna LeCourt, and Carrie Leverenz have observed, the rhetoric and composition academic job market is not exempt from the "narrowness and elitism" that often characterizes academic disciplines (xii), in that procuring an academic job in rhetoric and composition is often privileged over seeking work outside academia, and in that research-focused academic jobs are often privileged over teaching-focused jobs—despite the fact that there are fewer academic jobs than there are graduates, and that there are fewer research-focused jobs than teaching-focused jobs. In other words, capitalist market forces are at the heart of the academic job market. And as historian Ibram X. Kendi has argued, capitalism is inextricably bound up with and dependent on racism, from the foundational role of slavery to the continuing exploitation, criminalization, and disenfranchisement of Black, Indigenous, and

people of color. While my use of digital photos and videos and my focus on digital fabrication technologies responded to demand in the areas of digital rhetorics and technical communication, my whiteness—my white body, my white English, my white habitus—afforded me entrée and ease, first in the academic job market, and then in the academic book publishing market.

At the time, I was more attuned to my sense of precarity first as a job seeker and then as a book contract seeker than I was to my privileges and advantages—much in the way that I was more attuned to my sense of discomfort from my gender and skills difference in the makerspace than I was to the ways my whiteness mitigated that discomfort. This allowed the two strands I introduced in the previous section to remain more separate in my conscience and practice than they should have been:

1. Privileging relatively recent digital technologies in the maker movement and in academic spaces, and
2. Using digital tools as a technique for storytelling and locating the embodied researcher gaze.

In academic job talks and later in my book prospectus, I would in one breath acknowledge the forces of neoliberal, fast capitalism in the maker movement (including technosolutionism, the view that relatively "new" technologies can bring about progress and equity), and in the next breath I would present digital techniques—and specifically "my" approach to interviewing with a body-worn or handheld camera—as a solution to the problem of researcher accountability. In pointing out this tension, I am not suggesting that digital technologies in the maker movement or in writing studies are inherently problematic, but I am acknowledging, as many scholars have before me (Banks *Race*, Haas "Race," Gonzales *Sites*, Selfe and Selfe, Sun) that technologies are culturally situated, and they must be accounted for as such both in the subjects and the means of my work.

From the early days of my project, I encountered and was instructed by critical engagements with technosolutionism and technological utopianism in the maker movement. Human-computer interaction scholars Silvia Lindtner, Shaowen Bardzell, and Jeffrey Bardzell observe that technosolutionism, which is the belief that "technology can unilaterally solve difficult social problems," is evident in "promotions of making that portray it as furthering sustainability, social justice for women, economic development for the Global South, and empowerment for all" (1390). Additionally, communication scholar Susan Currie Sivek, drawing on the work of Howard Segal and of David Nye, situates the discourses of technological access and empowerment in the contemporary maker movement (as manifested in *MAKE: Magazine*, a central publication of the movement) in a long history in the United States of technological utopianism, or the belief that technologies can bring about progress. Sivek notes that technologies refer to "not only the creation of specific devices and tools, but also their implementation within a society (re)structured 'on the model of a giant machine' (Segal, 2005, p. 103), un-

der the control of rational, scientifically grounded (and, ultimately, elite) systems of governance" (189). Sivek connects this orientation to technologies with U.S. nationalism and manifest destiny, drawing on Nye's work: "people enter a new region, transform it using new technologies, and achieve prosperity, which attracts new settlers. This community builds wealth, and in the process, witnesses the disappearance of the original landscape and its replacement by a 'second creation shaped by the new technology' ([Nye] p. 13)" in continuing cycles of expansion (190). Sivek concludes that *MAKE: Magazine*'s creators

> likely have the best of intentions in crafting its content and are benefitting from the success of the branding strategies necessitated by today's capitalist media system. However, a critical perspective on the magazine and [Maker] Faire reveals the insufficiency of our culture's dominant narratives about technology [to meaningfully address social and ecological problems], and the need for journalism in magazines and elsewhere that provides alternative ways of thinking. (207)

While these articulations of technosolutionism in the maker movement were foundational to my orientation to the maker movement, I have also learned from former makerspace cofounder Clarissa San Diego to recognize that they are, to return to Suchman's words, located perspectives—specifically, they are located in academic perspectives. (This is not to suggest that people outside academia have not also described technosolutionism in the maker movement, but rather, to acknowledge that I sought and learned first from academic perspectives.) As I describe in my book and in our coauthored article, San Diego's praxis—as an original cofounder of the makerspace I studied and, later, as the founder and CEO of a technology agency that promoted the work of BIPOC, women, and LGBTQIA+ makers—profoundly transformed and nuanced my understanding of makers and technologies. My study began with a good/bad binary understanding of technosolutionism and capitalism in the maker movement, but one of the many things I learned from San Diego was to recognize the contributions of BIPOCs like her who dwell in the in-between (rather than the good/bad binary I brought to the project) by leveraging and redirecting corporate structures to benefit underrepresented communities and by actively and meaningfully working against the bifurcation of "business" and "community." As a result of learning from and working with San Diego, I changed the scope of my study in 2017 to include her maker technology agency alongside (and as a counter-narrative to) the makerspace she had founded (and left) that was the initial primary site of my study. In other words, while technosolutionism can be a useful frame for understanding the practices of a white male-dominated movement, it can also erase the work of BIPOC makers in and beyond the maker movement when it over-generalizes about the motives and backgrounds of makers. I needed to change both my orientation to and the scope of my study to enact a more careful approach.

And while technosolutionism is easy for academics like me to observe in the maker movement, it is certainly not unique to the maker movement. As CDA scholar Theo Van Leeuwen observes, "Contemporary corporate discourse is replete with positive self-affirmation, relentless optimism, and unquestioned belief in progress, and this kind of discourse increasingly infects other fields as well," including academic disciplines and the field of multimodality, which "tends toward a celebratory view of multimodality, as a tool for the design of effective communication" (5). In highlighting a critique of uncritical celebration of multimodality, I want to be careful to specify whose multimodality is in question here: I am referring to my own practice, as a white, abled-bodied researcher, of digital video and photo techniques situated in white-dominated conversations about video and ethnography and about 3D rhetorics.

The uncritical celebration of white practices of multimodality in my own work and in our field is also connected to the marginalization and erasure of the contributions and practices of BIPOC communities. As Victor Del Hierro points out, for example, Hip-Hop culture has been absent from technical and professional communication conversations, despite its global reach and use of "the same principles that technical and professional communication would identify as the user-localization (Sun, 2012) of digital and communicative technologies." Furthermore, I have learned from Laura Gonzales—both from her example and her scholarship—that celebrations of multimodality, and particularly the affordances of video, need to be accompanied by making the content accessible in ways that honor the relations of disability studies perspectives on interdependence and Critical Race Theory perspectives on Crenshaw's theory of intersectionality ("Designing").

Even as I continue to learn to engage more carefully, I have benefited materially from my engagement with digital technologies in the maker movement and from my engagement with digital technologies in writing studies research, even though (or perhaps especially because) those two strands were in tension. In 2017, I accepted a tenure-track job offer at a research-focused institution. My engagement with digital technologies had been central to my candidacy (including my job talk), and my white habitus and body undoubtedly made it easy for me—and my engagement with digital technologies—to be viewed as "competent" and "cutting edge" by white academic standards. That job came with a salary, research start-up funds, and yearly travel funds that enabled me to upgrade my digital tools (as I describe in my *enculturation* article, "Making Knowledge: A Kit for Researching 3D Rhetorics") and to continue my longitudinal project by making regular trips back to Seattle. One such trip, for the September 2017 Seattle Mini Maker Faire, served as the focal point of the *enculturation* article, in which I document how I use a variety of digital recording technologies, including the smartphone and GoPro that were staples from the beginning when I was a graduate student, as well as a 360 camera and an upgraded DSLR camera that I acquired with startup funds as an assistant professor.

In addition to material support for my research, dedicated research time, including a first-year course release in 2017, gave me time to expand my dissertation into a book and prepare it for submission. In 2018, I submitted a book prospectus and draft manuscript to the University of Michigan Press Sweetland Digital Rhetoric Collaborative Series' book prize competition, and while I was not selected for the prize, I was invited to use the editorial board's feedback to prepare a manuscript that the press would send out for peer review without an advance contract. Digital videos and photos, as well as visualizations, were (not surprisingly, given the nature of the series) central to my prospectus and my book's candidacy for the series.

But I was more attuned to my sense of precarity without a commitment from the press than I was to what I now recognize as the first of a series of privileged opportunities to get my foot in the door in the difficult process of publishing a first book, and then to stay in that process despite split peer reviews. I was again given the benefit of the doubt in early 2019, when split peer reviews led to a revise and resubmit decision, despite one reviewer's assessment that the book was not ready for publication and even though the series and press had no contractual obligations to me. My use of digital video and photo was not questioned by either reviewer, and upon reflection, I recognize that while including my voice and hands in the videos was an intentional methodological choice to locate my embodiment as a researcher, it also meant that during the review process, my embodied privileges were inextricably woven into the reviewers' experience of that content.

Later that year, when the reviews came back for my revised and resubmitted manuscript—one from the skeptical reviewer in the first round and one from a new, third reviewer—they were once again split (though, again, unanimously approving of the digital components), with the formerly skeptical reviewer now approving of the manuscript, and the third reviewer expressing concerns about my critique of new materialism and my use of narrative-driven, rather than thematic- and code-driven, analysis and data presentation. However, the third reviewer also acknowledged their positionality as a third reader in a second round of review and ultimately deferred to the editors to oversee revisions instead of insisting on another round of review. The editors, in turn, invited me to write a revision plan that they would forward, along with a recommendation from the series to the editorial board of the University of Michigan Press for consideration for a contract.

I was awarded a contract in January 2020, and after I completed revisions that incorporated reviewer, editor, and editorial board feedback and prepared my text and digital components for the press' specifications that spring, my book went into production that summer, with a scheduled release date in June 2021. And because this publishing timeline coincided with my third-year review, I was encouraged by my department to begin preparing for an early tenure bid, despite the economic uncertainties from COVID-19 that had by that point led to a near-uni-

versal pay cut program at my institution and the loss of many non-tenure-track and staff jobs. Again, my point in tracing the intersections of technosolutionism and my white privilege in my engagement with digital technologies is not to suggest that technologies cannot do useful work in the maker movement or in digital rhetorics research. Rather, my point is to attend to the ways my whiteness and multiply privileged identities are inextricably bound up with how I engage digital technologies and how, in turn, my work is received and rewarded.

Learning Relationality in Research and Publishing

In the previous two sections, I have described the ways I have benefitted from my engagement with digital technologies as both the subject and the means of a five-year project, even though I was not as critically aware of the interplay of those two strands as I should have been. In sharing and critically analyzing my experiences with digital research as a multiply privileged white person, I have attempted to locate and examine often-unacknowledged white supremacist discourses of meritocracy and of technosolutionism that circulate through and imbue early career research processes. By locating and examining privileged discourses, practices, and material effects in my experiences, I aim to create a little more space to resist and redress the ways I and others like me benefit from white, ableist, heterosexism in academia, to the exclusion and harm of others, in our engagement with research and technologies.

I also aim to participate in the work Natasha Jones and Miriam Williams have called us to do in imagining a more just future, which begins with naming and refusing racist systems:

> A just use of imagination recognizes that redress and remedy must follow behind a refusal to adhere to the confines and constraints of the status quo and this requires an acknowledgement that oppressive systems and institutions are indeed not broken or faulty, rather that they are working purposefully as designed–in support of white supremacist and racist ideas and ideals.

Crucially, Jones and Williams also emphasize that imagination is "not just conceptual" but must be enacted with a goal of transformation. Following are some example action takeaways from my experience:

- **In my ongoing engagement with digital technologies in research:** I must resist the temptation to invent or discover (read: to Columbus) a digital method or technology for the sake of having something to market myself and my work as "cutting edge." Following the wisdom of Angela Haas, whose words begin this chapter, I can orient myself to technology as the relations and interworkings of bodies and things, which reminds me to prioritize being accountable to and in

responsible relationship with research participants, communities, and fellow researchers.

- **In my advising and evaluating others as a mentor and colleague:** I must resist the temptation to uncritically use my specific early career research experiences with digital technologies as a benchmark or model for others—such as people I mentor or, one day, make hiring or tenure and promotion decisions about—because without accounting for the ease and opportunity afforded to me by my positionality, privilege, and power, I perpetuate harmful assumptions that everyone experiences academic systems and digital technologies the way a white, cis, abled-bodied person (for whom those systems and technologies were designed) experiences them.
- **In my editorial roles:** I must acknowledge and redress bias in review processes, both in my work as a reviewer and in my work as an editor or associate editor. Specifically, I must resist the impulse to privilege technologies or techniques just because they are "new" or associated with dominant industry or academic practices. I must also recognize and intervene when the embodied privilege of a researcher and/or research topic affords them an opportunity or benefit of the doubt that is not extended to marginalized researchers and communities.

Furthermore, the critical analysis in this chapter must also function as part of continual, coalitional imagination and action in all aspects of my relationships and practices—not just in what I write for publication—to justly remake the way we relate, teach, and do research with digital methods. Therefore, in this final section, I acknowledge the labor and contributions of BIPOC women whose work, actions, and relationships have taught me to engage technologies more relationally and to dwell more carefully in the interplay of those two strands (the subject and the means) of my work. I do not mean to suggest that I have achieved any sort of pure state of insight or morality, but rather, that my critical journey is ongoing (and lifelong) and is indebted to the labor and patience of BIPOC women. Rather than relegate this recognition to an acknowledgments section or, worse, take individual credit for my journey, I take up Jones' call for coalitional work by concluding this chapter with the insights of the BIPOC women from whom I have learned.

From Jones' work and praxis, I have learned to situate myself more critically in relation to narrative traditions, including the ways I talk about and use digital technologies. Jones's decolonial approach to narrative inquiry, which she emphasizes is "concurrently a methodology, perspective, and practice" (520), has taught me to acknowledge and cite narrative traditions beyond relatively recent, white, Western approaches and to avoid an individualistic re-centering of my experiences (which also feeds myths of meritocracy) by instead contextualizing myself and my practic-

es in relation to bodies, systems, traditions, and things. This includes not only the subjects of my research and teaching, but also the means of my work—including and especially how I navigate professional structures like writing a dissertation, going on the academic job market, preparing a book for publication, and preparing a tenure case. And I continue to learn from Angela Haas' words that begin this chapter, "technology is not just what does the work, it is the work—and that work relies on an ongoing relationship between bodies and things" ("Wampum" 291). At first, I applied my understanding of those words to the subject of my research, digital fabrication technologies in a makerspace, while allowing my own use of digital technologies in my research methods to stand as a neutral "accountability measure" for describing my researcher embodiment. I am still learning to apply her words more critically to my engagement with digital technologies, particularly in the ways I have benefitted professionally and materially from them.

Furthermore, as I have described above, Clarissa San Diego's praxis profoundly remediated my orientation to maker technologies by teaching me a more nuanced approach to critiquing technosolutionism in the practices of a white man-dominated movement, while also recognizing and amplifying the work of BIPOC makers. And as I describe in my book, her relational approach to making—building relationships among people, technologies, communities, and things—equally profoundly shaped how I came to theorize, teach, and practice making myself. Likewise, Laura Gonzales continues to teach me—in her scholarship, in her wise feedback on countless iterations of my work, and in her leadership—to honor and amplify the work of BIPOC makers and scholars not just in my research and publishing, but also in my mentoring and relationships. As I continue to learn from the coalition of BIPOC women she assembled for a Kapor Center-funded initiative, it is vitally important to build "technological innovation with (rather than just for or about) historically, structurally, and systematically marginalized and underrepresented communities," because "technological innovation, when it is made and developed through reciprocal mentorship networks, can disrupt a chain of signifiers of a privileged structure and create makerspaces for and with community knowledge and information" (Poudyal et al. 1-2). This is equally true for technological innovations in digital writing and rhetoric research. To imagine and enact a more just future for digital writing and rhetoric research, I can and must disrupt privileged structures—including my own participation in and benefitting from them—and center marginalized perspectives in coalitional work that, as Jones advocates, recognizes the collective over the individualistic.

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