

**Authority, Information Justice, and Source-Based Writing: Cultivating a Critically
Curious Research Disposition**

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Located at the nexus of English composition, information and library science, and community-engaged writing, this project investigates how social justice methods can inform source-based writing behaviors in today’s charged information landscapes. Even though we live in a time of increased access to information, research, and new media, we also live in a time of doubt, distrust, and misinformation. Infoglut has left information consumers confused as to what/who they can trust, and how they fit into complicated information ecosystems. At the center of this quandary is a question of source authority—a concept which carries with it problematic histories of power and oppression, but also the weight of trustworthiness and credibility. Given the ways that hierarchical knowledge-making structures and information dissemination platforms have excluded marginalized groups in both content and creation, it is prudent to be wary of institutional markers of authority in research writing. Yet the blatant disregard of authoritative sources in today’s “post-truth” information landscape creates destructive political realities, including climate change denial and anti-vaccination campaigns. This dissertation responds to these realities by complicating notions of source authority and suggesting ways that nuanced research dispositions might be cultivated. Namely, this dissertation suggests that researchers cultivate a critically curious research disposition—one that approaches sources and research writing processes with both skepticism and openness. This project examines questions of source authority, social justice, and critical curiosity using two application-based case studies. The first

case study is a community-engaged Black feminist Wikipedia editing project located in a systemically under resourced neighborhood in Pittsburgh, PA, USA. The second is a qualitative study of first-year composition students' attitudes toward source authority and research-related curiosity at the University of Pittsburgh.

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Preface

This dissertation is for my mother, for my success is hers. And for my daughter who is learning that we can do hard things in hard circumstances. Perhaps most importantly, it is, and always has been, for me.

I also deeply thank the girls of HYPE Media for the way they richly and unapologetically fill the spaces around them. Each one of you has taught me so much.

1.0 Introduction: Research Writing and the Problem with Source Authority

1.1 Project Introduction and Justification

The questions that ground this dissertation formed years ago when I was an instruction librarian working with first-year writing [FYW] students. While our library instruction curriculum largely focused on finding academic sources, more and more composition teachers were asking for information literacy curriculum overviewing how to evaluate the non-academic sources they noticed students using in their papers. After the 2016 presidential election I and my library instruction colleagues, conducted a research study on how these students evaluated the reliability of easy-to-access news and media articles online (Silva, Green, Walker; Silva, Green, Mendoza). Using talk-aloud protocols and screen-recording software, we observed nearly a hundred first-year writing students as they evaluated five online articles for trustworthiness, credibility, and reliability. These articles ranged from fringe sources on the political right and left, to more mainstream sources from *NPR* and the *Washington Post*. Then, using grounded theory, we coded and analyzed the student responses to find trends in source evaluation behaviors. Many findings of the study have been integral to my understanding of student source evaluation habits: student skepticism over mainstream media, overwhelming reliance on emotional responses to rate information credibility, and an over-reliance on visual design features to determine information credibility. One implication, however, remains the most intriguing finding to me, lingering even years later: student confusion regarding the concept of *authority*.

As I analyzed the data, I repeatedly watched screen recordings of students evaluating online source material who struggled to articulate what did or did not make a source authoritative. Their

frustration was visceral in some cases. While rating a straightforward news report on a Space X rocket launch in the *Washington Post*, one student complained about participating in the study: “I guess I can see how this [source] might be a little biased. I’m just not smart enough for this study. Why am I even doing this?” This frustration over the ability to rate an article underlined larger confusions about reliability, credibility, and ultimately source authority—and this individual’s understanding of her own positionality within a wider information ecosystem. While I observed students clearly understood things like publication date, author, and publication venue mattered when assessing for authority, they struggled understanding how these different kinds of authority spoke to power dynamics and trustworthiness in today’s online information environment. They struggled to translate their understanding of credibility into a Likert-scale reliability rating. And this troubled me.

It troubled me because I am confused about this myself. There is a conflict, I believe, between the concept of authoritative, credible, “true,” or “factual” source material and the critical thinking, and iterative questioning, even skeptical, behaviors that composition instructors (and to a wider extent humanistic methodologies) encourage. There are many reasons to be confused by, and even reject, institutional notions of authority in academic research settings. While I will enumerate many of them later in this dissertation, suffice it to say here that the academy as an institution, through the research it has deemed authoritative, has been a major perpetrator in creating oppressive structures of knowledge production which systematically favor privileged voices over Others. This assertion is not new to women, BIPOC, disabled, religious minority, or queer individuals whose voices have lived on the margins of academic discourse. Sara Ahmed likens the university as an institution to a well-worn chair that fits some embodiments, and not others. In these knowledge producing environments certain bodies, people, voices, or diverse

needs are deemed “misfits.” As Ahmed explains, “Fitting becomes work for those who do not fit; you have to push, push, push; and sometimes no amount of pushing will get you in” (“Queer Use”). Knowledge producing environments, like the university itself, have been a wall against which diverse minds have had to push to make intellectual contributions. By denying things like lived experience in the face of empiricism and narrow, canonized texts and methods, the academy has legitimized certain ways of knowing and delegitimized others. Put another way, in the university some ways of knowing carry more authority than others.

In this dissertation I seek to better understand and respond to the blanket skepticism I have witnessed in student and (even larger political) source evaluation behaviors. What I saw for students was far from careful skepticism and criticality that questions, and seeks to redefine, institutional authority. Instead, the stance I witnessed paralyzed students. The Space X article I mentioned earlier was a straight-forward report about a rocket launch, yet the student I quoted was quite critical of it, desperately trying to figure out how it was biased, almost expecting it to be. While we know nothing is completely free of bias, uninformed skepticism, in our study, simply led to deeper entrenchment in previous notions of “truth.” It did not help students become better information users. Using a lens of disbelief, students tended to use their already-formed political beliefs or ideologies to help them assess an information source’s credibility. Confirmation bias is well studied, as is reliance on alternate news sources like social media shares for daily news consumption (Mitchell et al). We are well within the age of networked information sharing in which sources are shared horizontally, from friends to friends, rather from top-down “traditionally” authoritative sources. Such public confusion over source authority has resulted in widespread doubt surrounding information, news, and facts in general. In a 2020 Gallup Poll 27% of Americans have “not very much” trust in mainstream media and 33% have “none at all.” These

figures are at “a record high, up five points since 2019” (Brenan). Such confusion has created destructive political movements. These include climate change denial and anti-vaccination campaigns. In today’s confusing information environment, the rejection of facts is, quite literally, killing people and the planet.

I find myself in a precarious position as a trained information professional, a former librarian, and as scholar who studies research writing. I find myself in a position where I am very wary of authority and the power structures it brings with it. I also find myself very much relying on authority as an important factor in information evaluation practice. While skepticism has its merits, I recognize it also underlines the paradoxical quandary where I find myself now: professionally dealing in critique, yet personally relying on fact-checking to assess objective “truth” for issues about which I am passionate like climate change or reproductive rights. Indeed, I often question data alongside my impulse to use it to defend politics and policies. As Jason Hannan states in his book *Truth in the Social Sphere*: “We thus appear to have two opposing orientations in American political discourse today: on the one hand, a defiant disregard for the facts; on the other, an obsession with facts” (xvii). “Facts” are locked up in complicated histories of authority, and an overall tension between questioning authority and leaning into it. It is that paradox that is the underlying current for this entire dissertation project. I seek to understand how authority functions in source evaluation, and information creation by way of research writing, and how authority functions in research-writer’s approach to the research process itself. The project unpacks authority on a variety of levels while suggesting alternate research positionalities that are self-consciously (de)authoritatively, walking the tightrope of belief and doubt, of criticism and curiosity.

1.2 Chapter Overviews

As scholarly conversations go, my project is located at the nexus of composition studies, information science, and critical digital studies. The implications for this work are both theoretical and pedagogical. I study them through publicly engaged settings as well as university teaching and writing settings. Chapters one and two are theoretical in nature. Chapter one overviews the who, what, how of authority. In it I work to understand the complicated layers of authority in online information spaces, post-truth politics, and academic knowledge-production systems. The chapter uses the concept of “container collapse” to show how ideas surrounding authority have collapsed or changed shape. Such an understanding builds empathy for students who are navigating today’s complicated information spaces. Chapter two responds to the authority quandary outlined in Chapter one wherein I suggest we must both be skeptical of authority and understand it as an important factor in information discovery, consumption, and use. I suggest in chapter two that one way to respond to such a quandary is by developing a critically curious research disposition—one that balances doubt with openness, and skepticism with hope. Such a research disposition requires intellectual humility and an ability to be open to being wrong.

Chapter three and four are application chapters. Chapter three seeks to model a critically curious research disposition in community-engaged research and writing project. This out-of-school Wikipedia editing program for high schoolers in a systemically under-resourced and historically Black neighborhood of Pittsburgh was founded on the principles of information activism and a centering of experiential knowledge as authority. Chapter four employs a qualitative approach to understand how first-year composition students think about source authority and curiosity regarding their research topics. I review the literature in composition and information science about information-finding behaviors in source-based writing contexts and find that

students seem to want to be curious, so long as it does not require much “extra work” on their part. I also complicate discussions of objectivity and bias. My research participants showed a strong preference for finding and using completely “objective” source materials but showed less awareness regarding the politics of bias in academic knowledge-making spaces. I consider how objectivity and subjectivity as constructs relate to institutional ideas of authority in research writing.

Overall, it is my hope that this dissertation accomplishes two things. First, that it provides an analysis of authority’s changing nature in online and academic research environments, presenting pedagogical ways to respond to such change. Second, that it examines how authority functions in different research environments—both in community writing settings and in university writing classes—showing how different methodologies might open space for a more expansive knowledge-making and research writing possibilities.

1.2.1 Defining Terms

There are a few terms that will be helpful to define to create a shared vocabulary. Not represented below are a few others I treat at length later in the text like “critical curiosity” and “(de)authority.” It makes more sense for me to introduce them in context in the chapters themselves.

1.2.1.1 Definition: Authority

In the rhetorical tradition, the concept of ethos is closely related to the concept of authority as a persuasive appeal. While ethos traditionally refers to the character of the speaker/writer, it encapsulates a swath of concepts related to the notion of authority:

Like many terms from Greek philosophy. . . ethos remains untranslatable in any word-for-word correspondence. Numerous terms gesture in its direction, though no one word or phrase captures its nuances in English. Character, authority, charisma, credence, credibility, trust, trustworthiness, sincerity, ‘good sense,’ goodwill, expertise, reliability, authenticity, subjectivity, ‘the subject,’ self, selfhood, self-identity, image, reputation, cultural identity, habit, habitus, habituation, person, persona, impersonation, performance, self-fashioning, voice, personal style: these make for a sampling of stand-in terms. (Baumlin and Meyer 4)

While it may be curious that I have chosen to focus on online source *authority* rather than expertise, reliability, or credibility, I do so self-consciously on the one hand because information science has adopted the word in the context of source evaluation in their *Framework for Information Literacy* and therefore it is a familiar term in that field. I do so also because authority, in the context of source evaluation, is a particularly compelling notion that carries with it, perhaps more than other ethos-related terms, undertones of power. In social justice contexts, power matters. An authoritative source commands action whereas a credible source elicits belief or trust.

1.2.1.2 Definition: Research

On a basic level, research means to investigate systematically. Primary research involves collecting data by way of conducting studies. Secondary research involves compiling existing data by way of surveying and synthesizing literature about a topic. My background as a librarian is in helping individuals find secondary source materials, specifically those found in library databases.

But as we know, much research is being done on the open web, outside of university settings, and through search engines. In other words, methods of research are changing, and as such the systematicity of knowledge creation is as well. This dissertation considers the implication of these changing realities and in many ways considers the systems we use to conduct both primary and secondary research.

1.2.1.3 Definitions: Information and Knowledge Production

To define knowledge production, I must differentiate it from information production. Information production is how data are decoded and made useable, readable, and understandable within a knowledge economy. Knowledge production differs in scale and effect from information production. Knowledge production applies information and makes its implications generalizable, using accepted conventions and standardized methods. These systems of knowledge production, especially those associated with the academy, carry historical weight and the privilege of authority. Like all forms of authority, though, the boundaries that have separated the knowledge producers from information consumers is becoming blurrier. This blurriness comes with both positives (the potential for new knowledge-making practices that are more inclusive to be recognized) and negatives (the potential for political extremists to gain a following with their sometimes-hostile versions of “truth”). I recognize there are many ways of coming to know, and that even within the academy, the methods by which scholars produce knowledge differ remarkably.

What is important to understand about knowledge production is that it is a system, and within all systems value and power is at play. Within the academy that system has been heavily influenced by white Western methods which privilege systematic, “objective” empirical methods over the personal, reflective, or even community-based ones. This is certainly changing. In fact,

research suggests that knowledge-production processes in the sciences have started to move towards interactive and socially distributed knowledge making processes that are transdisciplinary and collaborative (Gibbons et al 1994). This means the foothold that scholars and universities once held in knowledge capital is now being shared with government agencies, think tanks, and other social ways of producing knowledge. With such change comes important new avenues for scholarship. New knowledge gaps, if you will. My dissertation seeks to explore the gaps new methods of knowledge create.

1.2.2 The Important Role of Composition Studies in Information Science

I come to this dissertation with a background as a humanist and an information scientist. This dual training in the humanities and social sciences informs my interdisciplinary approach to writing studies as an applied area of focus. I chose to get my PhD in composition because compositionists study writing in its broadest sense. Scholarly knowledge dissemination is still largely textual, even with more multimodal offerings coming to the table. As such, those of us who study writing processes are well situated to make important contributions to discussions surrounding information creation, dissemination, and use. Indeed, compositionists have long studied, and created, source-based texts. While composition as a discipline has historically been interested in student compositions within university classrooms, wider interest in online composition and community-engaged composition give us a more expansive area to test our understanding of research writing processes as the field grows. As a team, compositionists and librarians working together to better respond to changing information ecosystems constitutes an important collaborative space which can yield meaningful conversations and pedagogical interventions.

Collections like *Information Literacy: Research and Collaboration across Disciplines* (2016) do just this. They bring to the table compositionists, librarians, and administrators to consider the ways that information literacy can go from being a rather marginalized curriculum, to better integrated across the university. In this collection, Sandra Jaimeson, an original researcher with the Citation Project wonders how information literacy concepts can be better understood and taught across the curriculum. She also warns that *not* teaching information literacy (IL) more holistically will result in stagnation. She asks:

What is the role of real IL (not bibliographic instruction) in FYW?
How can we ensure that the skills and habits of mind are transferrable to other courses (and to work, life, etc.)? ...And if institutions recognize that IL cannot be “delivered” in one library visit, assignment, or even semester, how can it be advanced programmatically or throughout a student’s education (and beyond to lifelong learning)?... Unless these questions are addressed, I fear that the 2019 FYW research papers will not look significantly different from those produced in 1999 or 2010. (134)

In 2023 we are still facing these questions and I do wonder if our research papers look significantly different than they did at the turn of the century when I started my undergraduate degree. Librarians still struggle to get face time with students, disciplines are still struggling to integrate information literacy into their curricula, and students still struggle to know what sources they should cite in their papers. My dissertation is a foray into understanding some of the difficulties students face while finding, evaluating, and using information sources. It is also a foray investigating my own understanding of these processes. I outline the difficult concept of authority

in information ecosystems. I suggest research dispositions which might respond to changing information landscapes. I consider holistic approaches to thinking about, and teaching, information literacy in research writing contexts. Finally, I explore how such instruction might take place both within and without the university. Ultimately, I believe compositionists, especially those who run writing programs, have unique power. As administrators they have some political sway in universities and as directors they can outline and shape the general education writing curriculum reaching large numbers of students. It is my sincere hope that this dissertation, and my longer research trajectory, influences and informs programmatic level change to better incorporate information literacy pedagogy in writing classrooms and beyond.

2.0 Chapter 1: Collapsing Authorities and Post-Truth Information Politics

In 2016, Merriam-Webster and Oxford dictionaries declared “post-truth” the word of the year, recognizing that, culturally, “facts” were thrown into question and were less influential in shaping public opinion than they once had been. Instead, peoples’ emotional reaction or personal belief dictated their truth. This perspectival truth, something comedian Stephen Colbert called “truthiness”—is heavily influenced by personal ideology (Colbert). Then-American president Donald Trump regularly accused news outlets of publishing “fake news” to cast doubt on reports with which he disagreed, or which cast him in a less-than-attractive light (Farkas and Schou 2). Previously authoritative outlets like the *New York Times* came under fire as public trust waned in mainstream media. Even now, only 24% of American adults deem the *New York Times* “very credible” (“Credibility of The New York Times”). Trump’s use of “fake news” during this time showcased how words like “true” or “false” act as signifiers, signifiers that are, in some instances, empty, carrying contextually rhetorical (rather than objectively factual) weight. While misinformation, disinformation and fake news are well-studied phenomena that very much pre-date the 2016 election and Trump’s presidency (Baym), the blanket of suspicion thrown over mainstream news media due to the popularization of these notions illustrates how the concept of “authority” has been uprooted, questioned, and re-defined in contemporary post-truth information politics. Indeed, the Trump presidency threw these ideas into public parlance and awareness in new and exigent ways. This was fueled by emerging information and communication networks online where reporting, opinion, fact, rhetoric, expert analysis, and public response often overlapped, creating the perfect storm of doubt and suspicion of previously accepted authority

figures, venues, and sources. The who, what, and where of authority landscapes sharply changed—both deeply mattering and mattering less than ever before depending on one’s ideological leanings.

In this historical moment, online information ecosystems further confuse popular ways of thinking about source authority and truth. Authority indicators may have seemed more obviously marked (though no less complicated in terms of oppression) in bygone eras. This chapter overviews the ways contemporary constructions of authority function in online information ecosystems and the implications of such for academic knowledge production. As compositionists, it is important to think about information creation and retrieval practices, especially in academic spaces. Students are confronting challenging realities with more information at their fingertips than ever before. They are then being asked to weed through that information and use it in their academic compositions. If research writing is “a genre that gets at the heart of the entire academic project” (Brent 50) understanding simultaneously how authority constructions function in online spaces and in academic ones may give us a glimpse into the difficulty students face when we ask them to “use reliable sources” in their research papers.

To that end I begin this chapter outlining changing *who*, *what*, and *how* of authority and likening the cultural collapse of authority to container collapse—a phenomenon under investigation in information science that very much affects today’s research writers. In the rest of the chapter I examine the value different constructed and contextual authorities carry in institutional settings. I ultimately offer my own definition of authority that is flexible and may be helpful for emerging researchers who wish to both question authority but also put their trust in source material that is credible. I end by tracing my own source evaluation process throughout the writing of this chapter, which serves as a worthwhile metacognitive exercise and pedagogical model for instructors teaching source evaluation in research writing settings.

2.1 Authority: The Who, The What, and The How

In the introduction to this dissertation I outlined that the impetus for this project stemmed from the ways I observed students struggling to articulate how sources are or are not authoritative. There are various competing modes of authority in online spaces which have fractured the *who*, *what*, and *how* of authority. Indeed, we might conceive these different authority layers in terms of who creates information; who publishes it; what mode it is published in; and how it is created, disseminated, and accessed. All these contextual factors affect the reliability of the information we use and its value for any given information need.

Who creates and publishes information is one marker of authority. Online information ecosystems have significantly altered the way people interact with source materials, which bleeds into how students think about authorship. Studies find that the way individuals consult and think about sources is increasingly impacted by political affiliation, educational background, and even age. Younger Americans, for instance, are less likely than older Americans to consider the news organization that publishes a story as a critical factor when assessing for trustworthiness (Gramlich). In the context of authority, then, younger Americans rely less on traditional markers of authority (like publication venues and bylines) to tell them what information to trust—showcasing an openness and interest in accessing newer modes of information sharing, but without, perhaps, the critical awareness of what trust or authority in these new online spaces might mean.

What modes are used to create and contain published information also influences perceived authority. For many information consumers it is increasingly hard to discern exactly what kind of source one is consulting. Delivery methods online fluctuate much more widely than traditional

print media where information containers are easier to locate. Books, magazines, newspapers, or journals have readily available publication information in recognizable physical places in the printed object. In today's digital information environment, it is not always obvious what information is, or how it is created, based on how it is contained and packaged. Digital containers are obscured and much more difficult to identify, and vary from publication to publication, website to website, a phenomenon known as "container collapse."

How information is accessed is also an important marker of authority. Powerful dynamics are at play in the discovery tools we use to access source material, and the way those tools function within wider systems of oppression. For example, Safiya Noble critiques the Google search algorithm's discrimination against Black women in her book *Algorithms of Oppression*. Critically examining source authority includes understanding information *access* in addition to information *production*—what information is readily available, what information is hidden, and who can and cannot access information objects. Accessing information in systems which privilege some kinds of information over others will affect the kind of information that is produced and consumed, and the authority it holds for different audiences. This structure is powerful and in the same way that echo-chambers in social media are powerful. Both are systems which have the power to alter people's perceptions of reality.

Understanding the implications of morphing authority structures and information ecosystems is important because how people perceive authority affects the way they evaluate and use information sources. This ultimately affects what people believe, how they act, and how they compose. Understanding it as instructors gives us empathy for student researchers and provides potentially new entryways into talking about such complexities with them. By complicating institutional notions of authority in information-production and research writing praxis, research

writers might better respond to the changing nature of source authority and work to open more inclusive ways of finding, evaluating, using, and even creating source material in their written work. They might also be better able to justify such practices. As explained in the introduction to this dissertation, I focus on authority as a central concept because it is a foundational notion in information literacy literature related to information evaluation.¹ Authority is also an important concept to consider because, as sociologist Frank Furedi notes, “[a]uthority is more than persuasion” (29). In this sense, authority compels us to do more than just think differently about something; authority obliges us to act. Authority has political implications, and authoritative sources have the power to either change or to uphold the status quo. To admit that a person, organization, or source is authoritative is to give up some personal autonomy in the service of what one deems greater than the self. In other words, there is a tension between personal freedom, or even personal authority, and outside authorities that compel or command action or change. There is a “voluntary acceptance” where authority is concerned, which defers individual beliefs in the face of that which is more influential than the self (Furedi 261). Authority is powerful. And power is political. Where social justice is concerned, power structures must be examined and understood to be thoughtfully dismantled or revised. Therefore, understanding authority is a central way that social justice-minded scholars can make interventions in understanding information dispositions and research writing.

¹ See the Association of College and Research Library’s *Framework for Information Literacy for Higher Education*.

2.2 Collapsing Containers, Collapsing Authority

“This one’s a blog. Or is it a journal. Or is it a book? It’s a journal,” says one confused student research participant who was asked to identify a piece of information’s *container*—where the source was housed (Connaway “What is Container Collapse”). Containers originally applied to print materials—the physical *thing* that held the information object: a book, magazine, or journal. In the early 2000s librarians started studying container collapse, a phenomenon related to the way the web as an information finding and consumption platform removed visual cues and collapsed sources down to two-dimensional chunks that fit on a screen. The RSIC study, *Researching Students’ Information Choices: Determining Identity and Judging Credibility in Digital Spaces*, conducts ongoing research on how container collapse influences information behaviors of young people (Buhler). The study finds that the internet, as an information access method, creates “format agnostic” users who don’t necessarily care what kind of container information comes in, so long as it is easily accessible (ibid). However, in the library world (and this undergirds the wider university structure), information cataloging systems—information ontologies—are still very much tied to containers.

Ongoing research by the Online Computer Library Center (OCLC) and the center’s long term RSIC study delves deeply into how students interact with containers (and, by extension, the authority those containers symbolically carry). Studying students from elementary school to graduate level they find that although students understand on a basic level what a container is, they struggle to identify them consistently: “the fact that they only identified an average of 51 percent of containers correctly suggests that container collapse is a real and serious phenomenon. Nobody, even at the graduate stage, was able to identify every container correctly, and some students were

incorrect on almost all of their container judgements” (Cyr et al. “discussion”). This widespread confusion leads to broader questions about the value of different kinds of information and how shifting methods of accessing information changes how consumers perceive it. Coming from an information ontology standpoint, and an information evaluation heuristic, the quandary remains: without being able to identify a piece of information’s container, without being able to catalog it as a journal article or a book, catalog information under a type of media, how does one evaluate its relative worth? How might a student know what to believe or trust? In other words, what authority does it carry?

Libraries, university publishing systems, and many institutional constructions of source authority remain based around containers as a way of framing, holding, evaluating, and disseminating information. Indeed, Modern Language Association (MLA) citation conventions require that a container be part of the works cited entry—something I must explain to students every semester I teach. The very format of the works cited entry changes based on a source’s container, so without understanding what kind of a source one is looking at, one cannot cite it correctly, which affects a writer’s ethos. This, it turns out, remains a difficult task for students even after we practice identifying containers and using search filters. Anecdotally, I observe that young people are accustomed to using filters to find, say, a pair of shoes while online shopping, but with an information object they often report difficulty identifying what exactly they have found. While container distinctions are marked in the information object’s metadata, students struggle understanding how these records function, and how cataloging works conceptually. We can imagine how much harder it is for a student who is searching the open web using Google search results to distinguish between different containers. On the open web (in contrast to a controlled

library database search) search results do not make obvious what kind of information is being previewed in PageRank.

Ultimately, I consider the collapsing of containers akin to the collapse of authority online, a collapse that reverberates throughout larger information ecosystems, including academic ones. Container collapse is parallel to, and very much influenced by, collapsing notions of authority. In some ways, container collapse is a localized instance of how the internet's information structure has contributed to post-truth authority disintegration. To collapse on the one hand means to fall or fall apart, but it can also mean to make small, or to render less easy to distinguish. Like an inflatable pool floatie, without the air that makes the structure visible, the object still exists, but the form or shape is harder to identify. Authority online is similarly difficult to define. Online information environments fragment and fracture traditional notions of a single "authority" moving to plural "authorities." It makes sense, then, that young people are confused at what constitutes authority when there are so many likely candidates vying for their attention online.

Not only are there multiple authorities, and shifting containers for that authority, but many of them are also in contention and conflict, drawing on different epistemologies to validate their claims to power. Johanna Hartelius explains that contemporary internet sources like Wikipedia challenge "fundamental assumptions about expertise by disrupting well-established conventions of knowledge and authority" (135). Such authorities online make experts vs. laypeople indistinguishable as anyone can publish online and (ostensibly) anyone can edit and re-edit a Wikipedia article—something I return to in Chapter 3. Authority, in this context, comes from the populous vs. a single source. Relocating, revising, and redistributing authority among the many rather than the few creates a greater network of individuals who gain power together in contrast to powers of the past who were granted authority by church, state, or academic institutions. It also

creates situations in which post-truth information politics thrive. Such a fragmentation undergirds a contemporary contempt for, and suspicion of, authority writ large.

On the other hand, the collapse of these structures begs the question of what power constructs traditional publication containers maintain that is problematic or exclusionary? In other words, it presents an opportunity to re-structure and re-think about authority in terms of information production (via research writing) and ultimately, knowledge production. Indeed, the collapse of containers is a case study in the ways traditional knowledge making systems are challenged by newer methods of information creation and dissemination. Understanding how authority is changing online is integral to understanding how to open opportunities for productive re-structuring of authority structures, whether that has to do with academic publishing and knowledge making, or how we ascribe value to various source materials. It is also integral to combating reductive post-truth information politics which use the collapse of authority and containers to bring to the forefront ideologies which re-inscribe matrices of domination and further marginalize vulnerable communities—communities who often do not have as much access to quality information or are not as integrated into current information-production structures (Park).

The notion of post or counter-authority helps explain both container collapse and how shifting definitions of source authority lead to increased skepticism regarding information objects. Post-authority, or counter-authority, Frank Furedi argues, “rejects attempts to posit a single foundational norm as the validation of authority” (387). As the definition of authority is ever-changing, it is “vulnerable and in need of continual maintenance as struggles against, negotiations of, and transformations within” social understandings (ibid 186). These tensions—populism vs. elitism, individual experience vs. institutional expertise—will make up much of the remaining

discussion in this chapter. In the next sections I explore these tensions within the context of university knowledge production.

2.3 Counterstory: Changing Notions of Authority in the Academy

The university as an institution produces knowledge through multiple avenues: teaching contexts produce knowledge in the form of student and instructor thought; scholarly publications like monographs and peer-reviewed texts are another, well-recognized, form of academic conversation; committees and task-forces create some forms of knowledge and order in the university; different fields use different methods to systematize analysis and produce findings; conference presentations and community events invite wider audiences to be a part of knowledge-producing conversations. The academy is a complicated space with multiple authorities at play. Within these structures, we can recognize that there are *diverse ways of knowing*, and *diverse ways of dispersing that knowledge* and that there is space for multiple voices—not just the stereotypical sage on the stage endowing knowledge to the masses, nor the elite ivory tower scholar producing exclusive knowledge in a vacuum. No, academic information systems are contextual, and perpetually in motion. Like seasoned researchers know that different information types fit different information needs, they also realize that different research questions beg different research methods and sources. In this vein, some contemporary composition scholars are pushing the boundaries of what is “legitimate knowledge” (A. Martinez, “A Plea” 34) in the academy. I turn to these ideas to help unpack the complicated nature of authority within academic information production, and academic information dissemination.

Specifically, in recent years, critical race scholars have challenged constructed notions of academic authority using the practice of counterstory. Writings grounded in experience using non-academic voices as experts allow critical race scholars to “humanize empirical data” by recognizing that “the experiential and embodied knowledge of people of color is legitimate and critical to understanding racism that is often well disguised in the rhetoric of normalized structural values and practices” (A. Martinez, “A Plea” 37). In other words, counterstory provides alternate ways of exploring lived realities and shifts authority to individual narratives rather than institutionally normalized knowledge. This subversion questions traditional academic research by placing theoretical knowledge within a living, breathing, human being, rather than observations about that human being by an “objective” researcher. It aligns with changing notions of authority because it “involves questioning received knowledge . . . with the goal of challenging inequality and developing and activist citizenry” (Shor 11).

Indeed, this destabilization of academic discourse locates scholarly authority in previously overlooked places. Ira Shor explains that the reflective attitudes gained by changing research dispositions leads to *praxis* or *action* rather than remaining conceptual, caught up in the theoretical language which is so often privileged in humanistic academic discourse. For Shor, moving from words to action is vital. While some theories and counter-stories stay on the page, others change real, lived, embodied experiences. And they also have the power to change the way people act. Shor further explains the constraints of theory: “[t]heorizing theory produces abstract discourse whose reference to experience and history gets lost. Yet in academic life, as we know, the more abstract a spoken or written discourse, the more prestige the speaker or text represents” (10). This focus on theory presents an elitism problem for academics. Shor continues, “Herein lies the immense problem of the elite discourses already dominating academic work in classrooms,

conferences, and professional publications” (ibid). Counterstory opposes such elitism. It tells a different story—not a *new* story—just an institutionally discounted story of human experience. Its presence casts a light on the accepted nature of academic discourse, methods, and practices that have hitherto excluded it. Counterstory functions as a way of both restructuring knowledge production systems and questioning how they came to be in the first place. Counterstory’s intervention in academic methodologies questions what the academy values, devalues, how knowledge is made, and who gets to create information in scholarly ecosystems.

2.4 Putting the “Value” in “Evaluate:” Scholarly Information Economies

Such a focus on *value* deserves more attention. To go back to the overall context of my project—to explore authority in source evaluating practices for research writing tasks—I must explicitly state that to *evaluate* something is to make a judgement of its *value* as an object designated for a particular need. Information has value both in the economic sense, and also in the political (meaning “power”) sense. The way information is both valued and evaluated has social justice implications. Economically, scholarly information is caught up in expensive, and labor intensive, publishing systems and paywalls—despite the moves towards open access and open educational resources. All these constructions lend “authority” to scholarly information objects. So, in addition to power and influence, authority is also tied up in questions of money. Information continues to be expensive. Some people can “afford” (or are “afforded”) access to scholarly information, and others can (are) not. And even if the scholarly open access movement gains more traction, *someone* will bear the economic burden of publishing information that is “free” for public consumption, whether it be universities, libraries, scholars themselves, or rising tuition costs for

students. Any information published within an academic system is still within the system, and beholden to its economic realities; however, if it escapes said system, it risks slipping from the higher valued “academic” work, thus perpetuating its own exclusion. For academic information to be authoritative, it seems that it must also be expensive (or highly “valuable”). These economic realities privilege some kinds of scholarly production and disenfranchise others.

The information economy privileges established scholars and large, prestigious publishing houses with all of the oppressive arrangements that come along with those organizations including visibility, marketing, and wider circulation (and thus citation) of their ideas and works. In this economy, minority populations are often not attributed or paid for their work. For example, the Cite Black Women collective seeks to call attention this reality: “As Black women, we are often overlooked, sidelined and undervalued” (Smith) the collective explains. This “value” is monetary, related to intellectual property, and has implications for wider authority and influence in the university with the power that tenure and other spheres of growing scholarly influence bring. Like so many aspects encapsulating these issues, Cite Black Women and other related groups like Black Women Radicals are bound up in a tension between providing free and open access to activists and seeking fair compensation (and academic credit) for the labor that goes into creating these materials. Centering Black women scholars requires that the academy must also engage in self-reflective work to acknowledge the ways that Black women’s intellectual property has been systematically co-opted and appropriated without their permission for years. And it must compensate them. For, given the current academic publishing logics, how does one make something free and valuable? How do Black women economically survive a system which devalues their work and does not compensate them when that work is used by other scholars who then benefit from it (Swift)? The Cite Black Women collective is continually grappling with such

tensions and explores them in the quest for justice and liberation of Black women scholars and their ideas. The collective's work is not necessarily preserving current authority structures, but making new ones that are more hospitable to a wider range of scholars, opening up more inclusive ways of knowing with the potential of solving complex problems in novel ways.

When considering other ways information is valued, and therefore evaluated, we must also note the political nature that access to, and the ability to create, information holds in higher education contexts. Politically, “value may be wielded by powerful interests in ways that marginalize certain voices. However, value may also be leveraged by individuals and organizations to effect change and for civic, economic, social, or personal gains” (*Framework for Information Literacy*). To reference the old cliché, information is power—and power is political. It is political in the sense that it has the influence to shape and change perceptions. It is also political in the sense that select groups are the ones to create scholarly publications which have been considered a pinnacle of authoritative source material. Here we see that “authoritative” academic methods and academic publishing industries can be insular and self-replicating. What gets cited is continually re-cited, in part because of this process, and information finding tools like Google Scholar which rank query outcomes according to relevance and number of citations are part of this self-replicating phenomenon.

Peer review—widely considered the “gold standard” of academic publishing—bears mentioning here. Peer-review is a process whereby the quality (or “value”) of a scholarly contribution is assessed by experts in a field prior to publication. On the one hand, this process is meant to assure that there is some scholarly consensus that the material in question is solid enough to be part of academic conversations in a disciplinary field. On the other hand, critics claim that the process is exclusionary, results in gate-keeping, relies on a free labor system, is prone to gender

and racial bias, and is complicated by the growing number of lower impact journals which will more easily accept publications. The peer review process ranges drastically from publication to publication. This showcases that the peer review process may not guarantee “quality” in the way it was originally intended to (Teixeira da Silva and Dobránszki). Add to this discussion calls for open access. Online, open access journals are, in some fields, considered to be of “lower quality” by the academy but are much more accessible to a wider range of individuals since they are not hidden behind prohibitive paywalls. This is a trend which is certainly changing and depends upon open access funding models which privilege science publications with access to grant money over humanists who must rely on volunteer labor to make information “free.” While the process of peer-review is meant to ensure that trustworthy materials are published, like everything in the information age, it is rife with contradictions, complications, and concerns. While peer-review is meant to be impartial, objectivity is impossible to achieve within systems which are built on the realities of privilege and exclusion. Once one has been deemed an authority through tenure or publishing record by these knowledge production systems, one then participates in those same systems by becoming a reviewer bestowing peer-reviewed authority on other work one deems worthy. The process is cyclical and dizzying. However, to disavow the idea of academic consensus as a mode of knowledge production leaves questions of authority and expertise unraveled. This teetering between positive and negative valences regarding authority is the central tension of which scholars must be aware as they argue for the validity and relevance of their scholarly contributions.

To break these cycles, new ways of knowing *must* be introduced. But the quandary remains: the more problematized academic knowledge-making practices become, the easier it is for society writ large to discount them—given the already messy conceptualization of authority

online. The replication crisis in the social sciences, or the criticized practice of “p-hacking,²” caused by the high-stake incentives of tenure and grants, are just some of realities that have caused public skepticism of academic findings (Piper; Bruns & Ioannidis). Indeed, in the age of networked information and Google searches, “The traditional gatekeepers of truth, such as editors, journalists and public intellectuals, have lost their monopoly on public issues” (Farkas and Schou 2). In such a destabilized information environment, fringe news sources have made significant forays into public discourse (King, Schneer, White), capitalizing (with all the economic undertones that word carries), on public distrust of the media, and of anti-intellectualism at large. Some of this distrust is in the service of allowing a multiplicity of voices at the table, while other distrust buttresses the status quo of white supremacy, patriarchy, and neoliberal hegemony. The quandary remains: authority can oppress, and it can pave a path to increased understanding. Authority is, on the one hand, needed for rigorous, analytical research, but on the other hand, can be hard to pinpoint when academic claims and systems are shrouded in ideology. How, then, do we talk to our students about such contradictions and tensions? How do we uncover some of the institutional realities that affect our current notions of authority? How do we make space for new authorities to emerge while carefully sidestepping the post-truth information politics which re-oppress and re-marginalize? And how do we make visible some of these authority layers in our pedagogical practice? In the next section I work to develop a flexible definition of authority that might be put into practice in student source evaluation and research writing contexts. I argue, in the next section, that understanding authority’s constructed nature, and its contextual power is central to evaluating source material in today’s online information landscape.

² P-hacking is the manipulation of data analysis to create a favored result to be presented as statistically significant.

2.5 Authority as Constructed and Contextual in Higher Ed: A Case Study

Nikole Hannah-Jones's *1619 Project* and her highly politicized denial of tenure by UNC Chapel Hill's board of trustees is a contemporary example of how multiple authorities in academic spaces come to heads. Hannah-Jones's Pulitzer Prize winning *1619 Project* is a piece of historical work which centers the contributions of Black peoples from their arrival in the colonies throughout American history. It, in part, asserts that the American revolution was influenced by those wanting to solidify slavery as an institution rather than abolish it. The project itself was in some contexts lauded and in others met with uncertainty—especially among some white scholars who resisted the “revisionist” slant of the history presented (Serwer). The controversy about what “true” version of history is told, and who gets to tell it is at the center of the debate. Academic power politics are also at play as Hannah-Jones was denied tenure because of her involvement with the project (Dorman). While the decision was later overturned, and she was granted tenure after public outcries, Hannah-Jones ultimately decided to take up a position at Howard University citing the ways ideology and money influenced the original decision to deny her tenure:

I cannot imagine working at and advancing a school named for a man who lobbied against me, who used his wealth to influence the hires and ideology of the journalism school, who ignored my 20 years of journalism experience, all of my credentials, all of my work, because he believed that a project that centered Black Americans equaled the denigration of white Americans. (Fonrouge)

This example shows the contextual ripple effect of authority in different spheres and through different lenses. First, in Hannah-Jones's statement, she buttresses her professional authority by

citing credentials, work, and 20 years of experience. Still, the university's ideological and financial endorsement, she suggests, held higher sway than her professional authority. There are racial privileges here as well since her authority to make claims about American history, as a Black woman, was questioned by an overwhelmingly white organization. Disciplinary authority is at play—journalism vs. history—objectivity vs. “politization” of history. Furthermore, tenure itself is a level of authority which was denied, and later instated—showcasing the ways that institutions bestow or deny authority on individuals within their systems, giving those individuals power to speak with a higher level of scholarly expertise. Finally, the news coverage and public outcry which, in part, lead to tenure being offered Hannah-Jones, shows the contextual authority the public has to keep institutional power in check. These different authorities come from individuals, ideologies, publics, institutions, and information sources (including news coverage of the debacle, and the *1619 Project* itself as a Pulitzer-winning secondary reference source).

One way to understand and ground these diverging pulls is by analyzing source authority within constructions of power and situating them within contextual communication patterns. Authority as constructed and contextual is an idea forwarded by the Association of College and Research Libraries (ACRL) in the *Framework for Information Literacy for Higher Education* (2015). This document is a foundational text which outlines core concepts in information literacy as a discipline. Authority is one of those major ideas. Authority as contextual and constructed means that different communities recognize varied types of authority (contextual), and diverse rhetorical situations require reliant levels of authority to make arguments, claims, and to elicit action (constructed). While these contexts are messy and sometimes overlapping, this way of thinking about authority helps disentangle different layers of authority (the who, what, how) from one another, making them easier to analyze for student researchers, even in their complexity. In

the 1619 Project example, Hannah-Jones's rejection of UNC's offer of tenure was a move in which she also denied UNC's authority to assess her work and her credentials. Turning to Howard, an historically Black university, showcased how she both maintained her personal authority and autonomy as a journalist/scholar, and recognized the authority of an institution which would support her work rather than trying to fit into authority structures which disregarded and devalued her labor. This example is one way to help students see the various ways that authorities are at play in information production within universities and gives a sense of how power, influence, and politics function in such spaces.

Turning back to the construction and contextuality of multiple authorities, the ACRL *Framework* differentiates between information novice behaviors and information expert dispositions, contrasting those with emerging vs. sophisticated understanding of authority's constructed and contextual nature. Such a differentiation relies on threshold theories of learning which posit that novice researchers move through portals of knowledge as they progress on the spectrum of novice to expert. Interestingly, the distinguishing of novice vs. expert itself has authoritative implications (who gets to bestow such labels?), though that is not the focus of the ACRL discussion:

Experts understand that authority is a type of influence recognized or exerted within a community. Experts view authority with an attitude of informed skepticism and an openness to new perspectives, additional voices, and changes in schools of thought. Experts understand the need to determine the validity of the information created by different authorities and to acknowledge biases that privilege some sources of authority over others,

especially in terms of others' worldviews, gender, sexual orientation, and cultural orientations. An understanding of this concept enables novice learners to critically examine all evidence—be it a short blog post or a peer-reviewed conference proceeding—and to ask relevant questions about origins, context, and suitability for the current information need. Thus, novice learners come to respect the expertise that authority represents while remaining skeptical of the systems that have elevated that authority and the information created by it. Experts know how to seek authoritative voices but also recognize that unlikely voices can be authoritative, depending on need. Novice learners may need to rely on basic indicators of authority, such as type of publication or author credentials, where experts recognize schools of thought or discipline-specific paradigms (“Authority is Constructed and Contextual”)

This discussion of authority straddles the line between respect and skepticism by allowing for plurality of authorities, but also by grounding authority within contexts. Authority is not a completely free-floating idea, but instead, something that is constructed from relationships. And all relationships have power dynamics baked into them. ACRL's definition describes the balance between informed skepticism and openness to new ideas and ways of thinking in compelling ways. It allows for both an acknowledgement of different kinds of authority and a deferral to context by which to determine what kinds of authority are effective in any given situation. Authority is both central to, and pluralized within, this conceptualization.

2.6 Toward a Flexible Definition of Authority

One way to define authoritative source material in research writing contexts for students might extend the ACRL definition above and engage the rhetorical tradition which positions all communication within rhetorical situations. Blending these two fields of thought we might help our students as information consumers understand that *authoritative source material is convincing in a particular situation, for a particular audience, and within the context of a particular information need*. The situational realities of information retrieval, use, and need are helpful ways to ground discussions with students onto something which they can grasp, practice assessing, and transfer to other rhetorical situations. It also brings us back to the who, what, and how layers of authority discussed in the introduction—who produces the information, what methods of production are used, and how it is disseminated and accessed, and in what context. Given these layers, the major things that students and instructors must understand in order to assess a source’s authority are their information situation, the information audience, and the information need.

By focusing on situational authority, we are asking students to think carefully about how information is mediated. We are asking them to think carefully about perspectival “reality” or “truth” rather than absolute or objective “reality” or “truth.” This is not to say that reality or truth does not exist. In some ways, that is beside the point. Instead, it focuses on the various mediation processes that separate the information consumer from the ground “truth” itself—the mediation of various information creation and dissemination processes, rhetorical frames, and even the mediation of ideologies the information consumer may hold. These situational perspectives help unpack the “reality” of post-truth politics. Indeed, while the idea has gotten significant tracking within mainstream scholarship in recent years, especially with the Trump administration’s rise to

power United States, critical race scholars have made the case over and over again that the bigotry, hate, and vitriol that are being reported on in mainstream news sources have *always* flourished, and indeed, the experience of post-truth has been the minority experience *from the beginning*. Mainstream (read: white) academics are just now paying (some) attention. As Walter Mejia explains, “the post-truth era may well capture the epistemological, ontological, and axiological crisis of contemporary whiteness...but this uncertainty is not new to people of color” (5). Considering authority as constructed and contextual allows for individuals to realize that there are (and have always been) multiple vantage points vying for authority in a single information object. The uncertainty of this analysis simply illustrates how intersecting authorities are perpetually at play. Such destabilization paradoxically also empowers researchers to more solidly understand how authorities are working in information objects so they can critically recognize how their information consumption and information use can be more socially just.

Dana Cloud, communications scholar, and rhetorician, suggests that the process of communicating “truth” or “facts” is never neutral because it is always mediated. She defines this process “of making sense of information through symbolic action, in which choice of words, meaning frames, justifications, and articulations of local knowledge to general discourses of power all influence the uptake, circulation and understanding of that knowledge” (25). This process is persuasive and strategic, and situational—with interested parties including the rhetor, the audience(s), and the information itself at play. Standpoint theory, as explained by Cloud, suggests that truth, and by extension I would add, the authority to speak or relay truth(s), is both fixed *and* relational: *it is fixed within relations*. While these situations and relations may be dynamic, and ever-changing, this way of thinking eschews complete relativity or complete fixed thinking. In this sense, it diverges from post-structuralism. Instead, perspectival truth is rooted in rhetorical realism.

Cloud explains, “truth is a function of standpoint or perspective in a system of power. If that is so, then we don’t expect truth claims to represent an objective, universal reality. Different groups have divergent interests” (33). And these different groups likewise have different constructs of what is, or is not, authoritative in a given situation.

How, then, does the concept of *audience* play into how authority is constructed and contextual? There is rarely, if ever, a single audience in communication situations. Instead, audiences are plural and multifaceted (Palmieri and Mazzali-Lurati). As all information is mediated, such mediation has different effects on different audiences given their different perspectives. When dealing with authority and information, those evaluating information sources must be able to discern what information authority their audience will find persuasive or compelling. This includes an awareness of what the information evaluators themselves find compelling when they act as audience members, and why. When composing for an academic audience, using academic sources makes situational sense. When creating content for a TEDx talk, personal experience combined with primary research and/or secondary materials all carry authority. Lloyd Bitzer’s theory of the rhetorical situation suggests that audiences consist of “those persons who are capable of being influenced by discourse and of being mediators of change” (7). To his mention of discourse, I would add *information*. Considering information audiences, as fluid as they are, connects information creation, dissemination, and consumption to situations where information evaluators can view information objects within the ecosystems in which they evolved.

Analyzing how authority is contextual within rhetorical situations is one way to ground how multiple authorities function in information landscapes. Another concept, this time from information science, likewise helps showcase how source authority is contextually constructed within communication situations. An *information need* is the situation which leads up to, or

antecedes, searching for information. Rhetoricians might call this an *exigence*. This might be, in the case of a university writing class, an assignment which requires source material. The parameters of the paper, or the research question would create an information need which would dictate what kind of information an individual might search for which would be authoritative for that assignment. Or, it might be a personal problem-solving situation in which an individual with insomnia surfs the web for advice about how to get better sleep at night. In that situation the individual would need to make judgement calls about what she considers authoritative advice regarding sleeping patterns. That individual might also seek other kinds of information say, though a visit to a primary care physician.

While my interest is driven by online information seeking behaviors, it is important to note that various information contexts and authorities transcend the internet. While not the focus of this chapter, university writing students also seek information from parents, friends, and other non-web sources—something I return to in Chapter 3. These influences carry their own contextual authorities. It is also important to note that not all interactions with information are strictly exigency-based. Sometimes individuals stumble upon information. This does not mean that in these contexts authority is null. The concept of personal information management suggests that when humans find information sources when talking with friends, browsing a bookshelf, casually searching the web, or clicking on social media links, that they do so because they believe it might fill some un-known or un-defined information need or interest either now or in the future (Bruce). In other words, people are curious—an issue I explore at length in the next chapter. In these instances, the concept of authority is less defined because the information need is less defined, as is the rhetorical situation. Nevertheless, individuals consuming these kinds of information sources are drawn to talk, read, click, somehow—and therefore it still fits within a rhetorical context

wherein the consumer is an audience member who is being communicated *something* via an information source—be it a book, a friend, or a social media post. Like Ede and Lund explain in their oft-cited piece “Audience Addressed/Audience Invoked,” sometimes readers allow themselves to become the audience the writer invoked, needed, or constructed, and are therefore drawn to consult information on its own terms, rather than following their own pre-determined readerly desires.

Given these examples, no information seeking behavior exists in a vacuum, but all are contextualized within potential uses for information. R. Savolainen describes the contextual features of information needs and how they vary from situation to situation: an “[i]nformation need is therefore conceptualized as a *jointly constructed* understanding about the extent to which additional information is required to make sense of the issue at hand” (np my emphasis). In this description of information needs, the need is where the information, the searcher, and the issue, meet. Here is an example: if one is engaging in a leisure activity like reading a book that contains facts and figures, one’s information need might not be any more than learning something new, and no further investigation will take place. The information was presented, the searcher read through it casually with the intent of learning something new. Having done so, no further action or searching is needed to fill the simple need. However, if one is engaged in a research project with complex questions that beget complex answers, the “jointly constructed understanding” becomes trickier. Research projects are iterative, birthing more and more questions and requiring different kinds of information sources as topic narrowing occurs. So, at the beginning of a project, an individual’s information need may call for broad overview materials, but later it may call for scholarly arguments against which the researcher must position herself. As the information need changes, the authority and kinds of information to be procured changes as well. All of these needs

are based on the situation and various constructions of authority which fit that situation. Information found online is just a small subset of wider information seeking behaviors.

Considering how authority is constructed and contextual shows us, on the one hand, how complex information ecosystems are, where the rhetor, audience, issue, and information is in flux and changes as parties change or as needs change. However, it also helps ground discussions of authority in ways that do not take for granted that authority is something inevitable. Instead, this frame shows us how authority is built for different information needs and in different rhetorical situations. “Where experience and theory intersect” Cloud posits, “is in the idea of rhetoric” (21). It is also where information resides. For information is both derived from, and informs, human experience.

2.7 Applying Flexible (de)Authorities: A Search Example and A Conclusion

In the beginning of this chapter, I introduced the concept of container collapse, a phenomenon where information containers are not necessarily disappearing, but instead are becoming harder to identify for online information consumers. I am not an expert on container collapse. While I was aware of the phenomenon, I learned much more about it while writing this chapter. I return and conclude with that research experience to showcase how unpacking information creation methods within power structures might help us envision (de)authoritative source evaluation techniques for ourselves and for our students. By (de)authoritative I mean maintaining a skeptical stance toward institutional authority but recognizing the conventions of contextual authorities. Embracing the complexities and tensions of authority’s who, what, and how gives space to reimagine more inclusive information and knowledge-making practices, especially

in relation to research writing in learning settings. In other words, to teach students flexible search strategies and empowered information use, we must model how to be (de)authoritative researchers ourselves. To understand contextual authorities, we must be very aware of our information finding behaviors, and practice unpacking source authority layers. Let me use information I gathered from the RSIC study (*Researching Students' Information Choices: Determining Identity and Judging Credibility in Digital Spaces*) to demonstrate this re-imagining as a final anecdote, and as a pedagogical example that might be repurposed for the classroom.

2.7.1 A Guided Search Example: Self-Reflective and (de)Authoritative Information Finding

The Online Computer Library Center (OCLC) is a non-profit organization founded in 1967 by and for librarians. They are member-funded and research issues facing libraries and librarians—that includes academic, public, and special libraries (OCLC “About”). The OCLC funds and runs the RSIC project “Researching Students’ Information Choices: Determining Identity and Judging Credibility in Digital Spaces” in partnership the University of Florida, and Rutgers University (Researching Students’ Information Choices, “About our study”). Thus, the program is neither completely in or outside of the university. It is a hybrid research partnership, something that is important to recognize given potential funding models.

My initial search for “container collapse” both in Google and Google Scholar did not yield results about this study—at least on the first page of results.. Instead, I added “information science” to the query to find relevant results (see figure 1, “Google Results” and Figure 2, “Google Scholar results”). Each figure shows three results, but it is not obvious from the search previews that all six of these top results are connected to the OCLC’s RSIC study. It took me, a trained information professional, a few minutes, and a bit of digging to realize this. Interestingly identifying containers

was not what confused me—I understood quickly what containers I was seeing—instead, the presence of the containers muddied what group initially conducted the research. I had to, as Michael Caulfield, media literacy scholar, terms “go upstream” to find the original creators of the information. All the while, I was weighing what power structures created, maintained, and disseminated this information. I looked for ways to recognize, and also complicate, those structures in my research practice.

The Google results lead with a blog, followed by a *First Monday* journal article, and in third place is a library guide. The first three Google Scholar results show the same *First Monday* article (previewing a different part of the title, though, so not obvious it is the same source), an American Library Association Publication (ALA) (suggesting that the main professional organization for libraries recognizes the study) and, in third place, another peer-reviewed journal article published in *Libraries and the Global Retreat of Democracy*. Using a (de)authoritative research method requires that I investigate where the information comes from, who created it, within what power structures, and consider the implications of using this information: who benefits from its publication or my citation of it? Wherein does the authority lie, and why? Further, if I reflect on the definition of acceptable source authority I forwarded in this chapter, I must understand the contextual and constructed nature of the source and take into account my information need. In this case, it meant writing a dissertation chapter to a scholarly audience who produce knowledge within the academy but are aware of the complexities of doing so.

Perhaps not surprisingly I found the first Google result, the blog, to be the clearest of the six sources in telling me quickly where this information was from: the OCLC. A blog is something I have personally warned students from using as evidence in their research papers. After all, a blog is just opinion. In this case the blog entry is written by Lynn S. Connaway, PhD, and someone who

is an expert in student research behaviors and container collapse. Her name is not associated with every RSIC publication, however, and almost always comes later on the author string in scholarly articles. Given that context, I ask myself if this blog post less authoritative than, say, the First Monday article that showed up in both the Google and the Google Scholar search results. Peer review advocates would say that the First Monday article may hold more authoritative weight because it has been vetted by university knowledge-making structures—a journal article is a recognizable genre and is published in a respected venue. Upon investigation, though, the blog overviews previously peer-reviewed research in its entry. It is a remix of peer-reviewed sources written for a non-academic audience. It is very easily understandable, an accessibility which would likely be attractive to a student researcher.

While I do not have to pay to view either information object, I realize that complex funding and labor structures go into making the First Monday article free to me. Further, the blog is hosted (paid for, maintained) by the OCLC which spends millions of dollars each year on research (OCLC “finance”). Libraries and librarians fund this research. And even librarians have agendas. Libraries are working to stay relevant as a print-based information organization institution in the digital age. They also want their services used. The OCLC specifically researches how libraries can understand information environments and make interventions within those environments. A (de)authoritative research method works to uncover these structures and try to consider how power drives research and determines what is considered worthy or valuable in economic and less tangible ways. Note that I am not making value judgements, but curiously interacting with these sources. Ultimately (de)authoritative research methods are not about ranking sources. They require consumers to consider information creation and dissemination systems, access mechanisms by which they view and consume information, and the ramifications regarding how the information will be re-

packaged (re-contained) by the research writer. While decisions about what sources to use ultimately have to be made, a guided search like this might open students up to a world of considerations when they conduct their own review of literature in the future.

In this chapter I've chosen to cite the blog alongside the First Monday article because I have determined that both fit my information need, and both carry constructed and contextual authority given my context and my audience. In doing this I build their authority symbiotically with building my own. In making this decision I realize that institutional publishing platforms privilege agents of the university and work hard to consider what this means. The First Monday article is attractive to me because it subverts traditional academic publishing patterns and I cite it in order to support the open access movement. In addition to my citations, I have used personal anecdotes, personal authority (drawing on my own previous experience and research), and self-consciously tried to interweave diverse sources that bring to bear different viewpoints and research methodologies in and of themselves. While I realize that I draw on problematic power structures in my writing, I also messily try to open up space for newer ways of knowing as I uncover, and self-reflectively pick and choose what research I use to support my claims and explore my topic.

In-class searches like these where students can watch a more seasoned researcher grapple with source finding behaviors and unpack the various layers of authority while determining if the source works for a context and information need, I believe, is key, to source evaluation pedagogy in research writing. Making visible the information-finding process as one imbued with power and reflecting on how citation practices in research writing situations are similarly fraught may help students become more aware of their own constructions of authority and question them. Ultimately, complicating notions of authority—or approaching research with a (de)authoritative lens—helps researchers evaluate information objects in relation to who produces them and for

what purposes. Critical information literacy advocates students think about authority by engaging them in asking questions: “When might a government website not be reliable? When might Wikipedia be appropriate to cite? When would a library database not be a useful source?” These critical information literacy scholars suggest that “[f]inding ways to complicate source evaluation and bolster students’ own unique conceptions of authority, instead of relying on simplistic prevailing notions, could be a fruitful avenue for [instructors] to explore.” (Angell and Tewell 110). These questions contextualize information into an information need, and within that need, they encourage students to assess what kind of authority would best answer a specific research question. This method of questioning does not assume that certain modes of authority are of greater value than others inherently. Rather, using this (de)authoritative approach empowers the information consumer to assess authority within wider knowledge production systems, and apply various authorities to rhetorical writing situations.

Google container collapse and information science

About 9,180,000 results (0.41 seconds)

<https://blog.oclc.org> > next > what-is-container-collapse...
What is “container collapse” and why should librarians and ...
 Jun 20, 2018 — In today's smartphone world, when all of our media can be scrunched down into one device, we face what the research team calls **container** ...
 You've visited this page 2 times. Last visit: 6/13/22

<https://firstmonday.org> > index.php > article > download
Which students successfully identify online resources in the ...
 by C Cyr · 2021 · Cited by 4 — **Container collapse** makes it more difficult for today's students to identify the resources they retrieve in online search engine result pages, and determine if ...
[Introduction](#) · [Literature review](#) · [Methods](#) · [Findings](#)
 You visited this page on 6/13/22.

<https://libguides.midlandstech.edu> > c.php
Lateral Reading and Container Collapse - LibGuides
 Apr 11, 2022 — “**Container Collapse** and the **Information** Remix: Students' Evaluations of Scientific Research Recast in Scholarly vs. Popular Sources.

Figure 1: Google Search 14 June, 2022

Google Scholar container collapse and information science

Articles About 151,000 results (0.10 sec)

Any time
 Since 2022
 Since 2021
 Since 2018
 Custom range...

Sort by relevance
 Sort by date

Any type
 Review articles

include patents
 include citations

Create alert

Backgrounds and behaviors: Which students successfully identify online resources in the face of container collapse
[C Cyr](#), [TT Cataldo](#), [B Brannon](#), [A Buhler](#), [I Faniel](#), ... - First Monday, 2021 - firstmonday.org
 ... , or other **container**, and lose the contextual **information** that these **containers** provide. This ... looks at their ability to identify the **containers** of **information** resources, and how this ability is ...
 ☆ Save 📄 Cite Cited by 4 Related articles All 2 versions 🔗

[PDF] Container collapse and the information remix: Students' evaluations of scientific research recast in scholarly vs. popular sources
[AG Buhler](#), [IM Faniel](#), [B Brannon](#), [C Cyr](#), [TT Cataldo](#), ... - 2019 - alair.ala.org
 ... When students turn to search engines to locate resources for a **science** project, this means they often encounter similar **information** in a variety of **containers**, formats, and genres. This ...
 ☆ Save 📄 Cite Cited by 5 Related articles All 2 versions 🔗

Container Collapse and Misinformation: Why Digitization Creates Challenges for Democracy
[C Cyr](#) - Libraries and the Global Retreat of Democracy ..., 2021 - emerald.com
 ... evaluate scientific **information** on the internet. Part of this study looked at **container collapse**. ... This chapter focuses on the implications of **container collapse** for misinformation and ...
 ☆ Save 📄 Cite Related articles All 4 versions

Figure 2: Google Scholar Search 14 June, 2022

3.0 Chapter 2: Cultivating a Critically Curious Research Disposition

It is scary to admit ignorance, to own up to not knowing something. To admit, in a learning setting, that you don't know an answer, is to be intensely vulnerable. To admit in front of a teacher, or other learners, even more so. In a polarized culture of claims and counterclaims, where one's beliefs are so often enmeshed with one's identity, epistemic uncertainty may very well incite shame. Researchers find that even experts (or high "authority" figures) who would likely know the limits to their knowledge are loathe to honestly admit "I don't know" (Backus and Little). This is true whether they are confronted by questions they could answer (given more information) or things that are unanswerable no matter how much information they have. The repulsion to admit "I don't know" is so strong for those in decision-making roles, that they often feign certainty about uncertain things. In other words, lack of knowledge can be seen as a lack of power—a lack of authority. As social creatures we worry our credibility or reputation are on the line when we admit to not knowing; we worry about our social standing. This phenomenon has been described as "cloaked competence" (Puddephatt et al. 85) and affects students and professionals of all levels. But can we challenge this construction? As pervasive as the performance of certainty is, in this chapter I show how that positionality, the fear of not knowing, and even the inability to admit to the limits of one's knowledge, are antithetical to the research process.

In educational culture plagued by mandatory testing and assessments in K-12 education, anxiety and perfectionism in university-level student populations is an unfortunate, but understandable, outcome ("Henderson"). Instructors have long bemoaned high stakes testing and been interested in changing learning approaches to "encourage in-depth questioning rather than one right answer" (Murray et al. 33) but the current reality is bleak. Indeed, "while the admonition

‘we learn from our mistakes’ is ubiquitous, the reality in secondary schools is that being wrong is often a denigrated, negative outcome that is best avoided” (McMillan and Moore 85). While being wrong and not knowing are not the same, both point to the need for more learning, growth, and progress on the part of the individual. Further, both unveil the fact that no one can know everything. This reality has implications for authority which is associated with credibility or expertise. In other words, authority is associated with knowing. Interestingly, education research suggests there must be a balance between knowing and not knowing for learners to be intrinsically motivated enough to continue with a learning task. In the face of crushing uncertainty or complete failure, learners tend to give up. It is important that uncertainty be balanced with confidence that success is possible, even with a little help (Ozcelik 13). This is where instructor scaffolding amidst uncertainty is key.

Educational psychology also shows the great impact that a growth mindset, the belief that one can grow and learn, has on learning potential. As opposed to a fixed mindset, a growth mindset “is the belief that personal characteristics, such as intellectual abilities, can be developed” (Yeager and Dweck 1270). Growth mindset is a practice in understanding that not knowing is ok, and that one can come to know, or can come to improve one’s abilities. In the last chapter I outlined a quandary: that trust in authority is an important part of information evaluation behaviors, but that that same trust needs to be carefully questioned in today’s information economy. Here, I combine this with another discussion: the ability to accept and admit to what one does not know with openness and even eagerness. The ability to adopt a growth mindset and curiosity in an overwhelming barrage of increasingly politicized internet source material is important for 21st century learners. This balance is a difficult one to achieve because it requires the ability to believe in one’s potential as a learner by doing something uncomfortable—exploring the edges of one’s knowledge. It takes a great deal of self-regulation and metacognitive work to do this.

Such an approach questions personal authority as much as it does institutional and informational authority. As I suggested before, this tension can feel dangerous for students who are used to multiple choice tests, five paragraph essays, and argumentative writing where certainty claims are rewarded. Further, the willingness to fail and learn must also be balanced with some sense of success for learning to take place. With this in mind, I seek to develop a tension-based research disposition that both leans into authority and questions it. This tension confronts uncertainty with the understanding that it is an important part of the learning process, an empowerment based in theoretical criticism and intellectual curiosity. Other scholars have also used the language of “critical curiosity” to describe various learning and classroom habits—and while my work very much aligns with this educational research, it furthers it in a research disposition orientation responding to issues of source authority specifically.³ Critical curiosity, in my approach, is a reflective approach to source discovery, evaluation, and use which encourages researchers to question their relationship to the information sources they consult, and through writing, create. It encourages researchers to reflect on their own positionalities not only as

³ Examples of other scholars using this language in pedagogical contexts include the book *Curiosity Studies: A New Ecology of Knowledge* wherein the editors, Zurn and Shankar, bookend the volume with a call toward a critically curious pedagogy. Such pedagogy espouses 1) practicing sincere self-reflexivity; developing an empathic stance; 3) creating and enjoying uncertainty. Other mentions are from education research including “Developing Critical Curiosity in Adolescents” by Clark and Seider and Jubas’s “Developing a Pedagogy of Critical Curiosity in Professional Education.” These scholars trace the idea of critical curiosity back to Paulo Freire’s work as a precursor and catalyst of critical consciousness. In this sense, they see critical curiosity as a pedagogical implication to Freire’s theories regarding education. What differs in my analysis is that I apply these ideas to the research process specifically and spend time unpacking criticality and curiosity separately to understand how they influence each other as concepts.

information consumers, but as active participants in information-creation systems. It promotes a careful consideration of the role of the *self* in knowledge production processes. As such, this reflexive attitude helps one to examine one's own beliefs and assumptions about the information with which an one comes in contact in addition to (not instead of) questioning that information's credibility.

To understand what critical curiosity is and how it might look in practice, I first define it as a research disposition and show how criticality and curiosity relate to one another as concepts. Doing this allows me to understand each concept individually and how they inform one another together. I then explore a main tenet of critical curiosity: intellectual humility. I do this to unpack some of the implications of enacting critical curiosity as a disposition and lead into a discussion around what critical curiosity might look like within and without classroom environments. Ultimately, critical curiosity can be practiced by writers like me who are contributing to scholarly conversations, students who are learning how to answer complex questions through research writing, and community members who are interested in how information about their communities is created and circulates online. This chapter responds to the theoretical complication of authority I established in Chapter one and creates a foundation for the research studies where I study and apply critical curiosity in the remainder of the dissertation: one, a community-engaged Wikipedia editing project, and the other, a mixed-methods study of first-year research writers at the University of Pittsburgh.

3.1 Toward Critical Curiosity: Finding A Balanced Research Disposition

To be critical, on a basic level, is to maintain skepticism about a topic. Critical theory questions the social structures which surround, and create, cultural artifacts. For library scientists, information objects become the center of such criticism. Critical Information Literacy (CIL) is a growing sub-field of information studies. As defined by Eamon Tewell, CIL “examines the social construction and political dimensions of libraries and information, problematizing information’s production and use so that library users may think critically about such forces” (10). As a theory, CIL helps information consumers understand how information ecosystems work within complex systems of power and privilege. CIL does not take for granted the neutrality of information and its production, but instead, investigates the politically charged ways information is created, valued, and circulated, in addition to the social implications of such. To be critical is to question what one would normally take for granted.

3.1.1 Putting the “Critical” in Critical Curiosity

One way to understand contemporary tensions in source authority/authorities is by considering how theoretical criticality attempts to radically question knowledge-making structures, and by so doing, question institutional knowledge-making authorities. Interestingly, criticality as a lens is both born from theoretical traditions, many of which are taught and practiced in academia, at the same time as it questions those very ways of thinking. Criticality is a study of, an uncovering of, shifting authorities and power structures. Criticality is able, in other words, to live with, and work with, significant tensions and paradoxes as it questions institutions and structures. These tensions and paradoxes are central to my exploration in this dissertation: namely

teaching for *and* against authority simultaneously. Criticality as a mode of thinking, especially regarding issues surrounding authority, seeks alternate ways of knowing by acknowledging a plurality of paradigms and lived realities—not just those historically accepted, and published, by the academy. As such, it resists structures of oppression by acknowledging that they exist, understanding how they work, and, at the same time, side-stepping their assumptions and reasoning. A critical lens applied to questions surrounding authority might inquire in these ways: “what inequities have historical conceptions of authority perpetuated? Who has held the power in these constructs of authority? Who and what has been disadvantaged? What is centered in these structures and what is assumed about authority in that centering? What are other ways we might conceive of authority which are more just?”

One of the ways scholars have engaged in this work is questioning what “counts” as research in the first place. Within the context of Critical Race Theory (CRT), narrative and counterstory modalities of engaging scholarship question institutional knowledge-making practices which have systemically under-represented marginalized voices—particularly scholars of color. Indeed, a central tenet of CRT is the “centrality of experiential knowledge” (A. Martinez, *Counterstory* 9). Criticality in this sense asks how we come to know, and re-introduces individual experiences into the picture to counter, or balance, Western empiricist traditions of objectivity and distance in research writing and knowledge-creation. The Black feminist tradition likewise centers everyday knowledge and experiential authority while questioning any empirical claims to total objectivity (Richie). These critical approaches expand and diversify what we know to be “academic” writing and require a more thoughtful approach to research methods and analysis.

A critical stance is sorely needed as discussed at length in chapter one, with collapsing authorities online. A critical stance opens new areas of discussion and understanding and helps

individuals position themselves as both authorities on certain subjects given their life experiences, and lifelong learners who have particular vantage points that can be broadened by research and continued thinking. The question for those of us engaging in research writing pedagogy is how to help writers recognize authoritative or “trustworthy” sources while at the same time questioning constructions of authority which have marginalized, and enacted violence on communities. For instance, how can we, as instructors, engage in climate justice by relying on scientific consensus regarding environmental changes caused by human activities, and also acknowledge that many scientific “facts” have been violent, like historical assertions that women or people of color are less mentally apt than white men? A critical lens would spend time with the different ways in which authority and credibility are constructed in each of these situations and seek to place each within historical and social contexts.

But criticality comes at a price, some theorists say. An example is Bruno Latour’s seminal work “Why Has Critique Run out of Steam.” In it, he analyzes the fall-out of humanistic criticism’s culture and asks that philosophers foster new critical tools. Critique, Latour bemoans, is partially to blame for dangerous post-truth conspiracies which have propagated online, like the denial of climate change. He writes:

...entire Ph.D. programs are still running to make sure that good American kids are learning the hard way that facts are made up, that there is no such thing as natural, unmediated, unbiased access to truth, that we are always prisoners of language, that we always speak from a particular standpoint, and so on, while dangerous extremists are using the very same argument of social

construction to destroy hard-won evidence that could save our lives.

(227)

In Latour's critique of critique, we see that one potential problem with a critical culture is that it is easy to stop at the deconstructing stage. Rebuilding, reimagining, and revitalizing is the next step in this process, and one that can possibly be helped along with a posture of curiosity—a posture which asks, “what next?” Doubting truth is one thing but providing ways that individuals and societies can engage with truth claims in an empowered, analytical way, is another thing entirely. Latour calls for a vigorous new way of engaging with “post-truth” that is less rooted in criticism and more interested in renewal and regeneration. This idea is important for those starting out as researchers as much as it is for those with domain expertise. “The question was never to get away from facts but closer to them, not fighting empiricism but, on the contrary, renewing empiricism” (231), Latour explains. Critical curiosity is one way I, as an instructor and a researcher myself, can respond to this friction, with its focus on both criticality (the ability to question) and curiosity (the desire to know). Critical curiosity is ultimately rooted in a productive tension between doubt and hope.

3.1.2 Putting the “Curious” in Critical Curiosity

With that in mind, what is curiosity and how might it renew or invigorate criticism? And are there any limitations or complexities to curiosity that are important to consider in diverse research writing contexts? We do know that when curiosity is quantified and studied in learning contexts it is linked to higher learning and classroom performance (Reio 23). Psychologists and educators who study curiosity focus on several different kinds: epistemic (the desire to use information to learn in order to understand), perceptual (the desire to feel, experience, and

understand sensorily), interpersonal (the desire to socially understand others) to name a few (Deitering and Rempel). Epistemic curiosity might most closely relate to the information seeking behaviors I am talking about in this dissertation; however, other kinds of curiosity can and should be encouraged in research writing contexts. In fact, librarians working with first-year writing students who focused on curiosity as part of the research process found that simply reframing information seeking time in the library from “finding sources” to “learning about something” was helpful in piquing student curiosity (Deitering and Rempel). Curiosity surely can imbue all parts of the research writing process from topic selection, to information evaluation and retrieval, to the writing process itself. Theoretically, it informs the entire posture of the researcher as she approaches a complex writing task with the purpose to learn rather than to prove. Although it is hard to extrinsically create a context wherein curiosity will inevitably be fostered, modeling via curricular reframing can help with this process.

Thoughtfully questioning is a central way we demonstrate curiosity and frame assignments. While criticality is a mode of questioning systems in order to uncover gaps, curiosity is a mode of questioning in order to find answers to those gaps. In this sense, these modes of questioning work hand in hand. From the Association of College and Research Libraries (ACRL) *Framework for Information Literacy* (2015) comes the concept “Research as Inquiry” meaning “research is iterative and depends upon asking increasingly complex or new questions whose answers in turn develop additional questions or lines of inquiry in any field” (np). Indeed, part of researching is understanding what has already been asked and building on those questions. Serious researchers know that the task is never finished, and that there are always more questions to be asked. Recursive questioning delves into topics, but also delves into the ways those topics have been discussed, looking for gaps, seeking new knowledge. In this sense, curiosity is exploration:

“curiosity, the desire for information and knowledge, stimulates exploratory behaviors, specifically observing, consulting, and thinking. In situations where learners perceive that they lack information ...their curiosity is situationally aroused and motivates them to fill their information gaps by exploring their environments” (Reio 18). Curiosity is also discussed in the Council of Writing Program Administrators’ *Framework for Success in Postsecondary Writing* (2011). The document lists curiosity as an important “habit of mind” for college writers and defines curiosity as “the desire to know more about the world” (1). Habits of mind are “both intellectual and practical” dispositions for student writers, and curious students, the *Framework* suggests, “seek relevant authoritative information and recognize the meaning and value of that information” (4). Interestingly, one of my main objectives in this dissertation is to complicate what counts as “authoritative information” using curiosity as a heuristic. So how do we encourage this kind of critically curious thinking that both librarians and writing program administrators champion? We cannot *make* learners intrinsically curious, but what we can do is promote situational curiosity. That is, we can model asking questions and searching within an open-ended research project. Situational curiosity—or asking iterative questions with a specific task in mind—can help students see what this process might look like for them.

An important part of questioning is not only questioning a topic, and approaches to that topic, but questioning one’s relationship to that topic, and the sources which surround it. Confirmation bias, that most prevalent of problems in today’s information ecosystem, is an incurious impulse. If confirmation bias is the tendency to be drawn to information that confirms our preconceived notions and avoid information that might challenge them, curiosity would be the tendency to be open to information which might challenge or widen our beliefs or knowledge systems. Indeed, curious “individuals are less likely to look for answers that support their views

(confirmation bias) or entertain stereotypes when they are open to alternative solutions” (Barton 439). Curiosity as a disposition must be enacted, though. Curiosity scholars who developed an interdisciplinary theory of curiosity called “Curiosity Studies” posit that “curiosity is praxiological; far from something that is simply felt, curiosity is something that is done, expressed in behaviors, habits, architectures, and movements across physical, conceptual, and social space” (Zurn and Shankar xiii). One way to practice it is to confront biases by a growing awareness of oneself.

How does one showcase this self-questioning self-awareness? Metacognition is one way that people can better understand themselves, their learning, and their thought processes. An awareness of who one is, and how one thinks, helps research writers better understand their relationship to source material. Scholars who study metacognition and source-based writing find a correlation between a student’s metacognition and the quality of their final essays (Rakovic et al.). Metacognition is of great interest to composition scholars who have studied it using different research methods. For example, Baker et al. developed a metacognitive, question-based pedagogy with reflection built in throughout the writing process. Analyzing student reflective papers, they found throughout their writing and reflecting students’ “question-asking evolved,” students felt stronger “writerly agency,” and “identified question asking as a transferrable skill” (Baker et al. 395). A longitudinal study by Driscoll and Zhang found that a writer’s disposition/identity is as important as other factors influencing their writing processes (np). Reflection is one way that students can metacognitively engage with their dispositions and identities productively as they relate to their research and writing behaviors. Reflective work before, during, and after a research project can help students engage with their prior beliefs, try to state the limits of their knowledge, and ask questions. Reflective work during the research process might document problems, failures,

or moments of frustration. It might also document where a student's opinion morphed or changed and why. Reflective work after the research process might document what the student learned about writing or research (not just the topic) through the process. Such a reflective approach encourages students to be curious about themselves and be curious about their topics.⁴

Curiosity has not always been seen as a positive trait, however. And as critical thinkers, we need also ask how does curiosity play out amongst diverse researchers from diverse backgrounds? In other words, are there any times curiosity might be problematic, or hurtful? The phrase “curiosity killed the cat” seems to suggest curiosity is dangerous. Individuals saying, “I’m just curious” seems to diminish curiosity to make it less scary for the listener. I’m “just” a little curious seems to mitigate any danger or threat associated with the positionality of curiosity. Curiosity may also be seen as something of a distraction from academic rigor or focused attention—something that would take interest away from whatever subject “should” be the object of study. In a K-12 teaching seminar on curious pedagogy, facilitators Zurn and Shankar saw that teachers got nervous when they suggested that curiosity was a good approach in the classroom. These teachers were burdened with assessment culture and were teaching in inner city schools. To them, “curiosity seemed like a privilege they could not afford. In other words, they were grappling firsthand with the system of racial capitalism that continues to produce schools ‘not concerned with curiosity,’ as Ta-Nehisi Coates puts it, ‘but [with] compliance’” (Zurn and Shankar 270). Institutional constraints are not the only thing quelling curiosity, though. Some are unfairly punished for even acting in a curious manner. In some of the most vulnerable populations, acting curiously may very

⁴ It is important to note that while I speak about reflection and metacognition abstractly in this chapter, I seek to model it in the next chapter where I overview a community-engaged research and writing project.

well be seen as dangerous or subversive, and thus a threat to systems upholding the status quo. We know, for instance, that students of color are more harshly punished than their white counterparts for speaking up, speaking out, and perhaps asking uncomfortable questions.⁵ Such embodied curiosity, then, becomes dangerous depending how it is enacted and received socially.

Given such realities, the onus falls on the teacher to create careful scaffolding for students to be curious, but also realize the different ways curiosity has been politicized as a matter of privilege. In other words, we must invite vulnerability, but not always expect it. We must realize that openness is a spectrum. Vulnerability must be met with safety, scaffolding, and an awareness that each student brings different worries, anxieties, experiences, and histories with them to the classroom.⁶ Within that context, who can afford to be curious becomes a matter of critical inquiry. Given historical anti-blackness in institutions and schools, learning systems have been perpetually linked to violence against people of color. Turning the lens to this is an important part of the process:

...developing curricula that makes all of us sincerely curious about the Black experience is one step toward liberation for all. In this context curiosity must be seen as part of an antiracist struggle,

5 Black girls are “more frequently and more harshly disciplined than their white counterparts for the same misbehaviors” in school and are overrepresented in school suspensions (Gibson et al. 174). Populations that showcase behavior seen as subversive in any way—including asking questions or acting curiously—may very well be disproportionately punished for such a disposition.

6 Trauma-informed pedagogy recognizes the unique backgrounds students bring to the classroom setting and is a movement in composition which seeks to sensitively approach writing experiences and in-class time to increase the well being of students. For more on this emerging field see Day, Tayles, Sharp.

continuously cracking open those narratives that maintain supremacy and superiority, and hail genocidal histories as “destiny.” Drawing on the concept of “fugitive pedagogy,” developed by historian Jarvis R. Givens and rooted in “the subversive intellectual and embodied acts African Americans employed to navigate anti-Black constraints within the American schooling project,” we might develop tactics of *fugitive curiosity*. These subversive lines of questioning challenge the racist constraints on learning and draw us toward a model of curiosity that is liberatory rather than oppressive. (Zurn and Shankar 275).

Zurn and Shankar invoke Morten and Harney’s *The Undercommons* as a way to subversively exist within institutional structures like the university—using curiosity as a heuristic. Critical curiosity, then, is a way of empowering and liberating as it helps individuals locate themselves within information creation structures, and by so doing, understand their power dynamics in ways that may lead to activism and change. Indeed, my next chapter will engage with the idea of information justice and information activism along these lines. Critical curiosity is both a pedagogical approach as developed by Zurn and Shankar and I extend this into research dispositions wherein individuals examine their relationship to knowledge-production and the information ecosystems which surround that production.

Critical curiosity might also be considered a weak ontology, a pragmatic approach to information evaluation which both relies on shared knowledge and also acknowledges the contestability of that knowledge. It is a weak ontology in the sense that it provides space for certainty (i.e. climate change is happening and humans are responsible for much of it) and

acknowledges the historical and contextual forces that create certainty claims (i.e. some historical claims have hurt marginalized groups, and as such it is worthwhile to approach any claim with skepticism and more research) (White). Critical curiosity is a positionality of cautious advance, and an intellectually humble stance—an idea I return to in the next section. It is open as opposed to closed. Critically curious researchers recognize that querying processes are never-ending, that questions always beget more questions. And this excites them.

In writing situations, when implemented through explorative research tasks, critical curiosity can be taught in a way that promotes dialogue and productive discussion instead of stalemate. It seeks to create a bridge from individual experiences and authorities to wider views of expertise and evidence-based claims. Curiosity, especially the social kind, may even lead to empathy—our ability to identify with another person’s experience. Empathy is an integral tenant of social justice, promoting allyship and co-conspiracy. Indeed, as compositionist Erik Shonstrom explains in his book about curiosity and education: *Wild Curiosity*, he posits, “Curiosity may be the very thing that moves us toward a more just world. The alternative—an incurious world—may be one where prejudice and misery reign. Curiosity may be one of the essential ingredients to empathy, something we can all agree the world could use a little more of right now” (46). While some might find it difficult to see how a research assignment could help with widespread social empathy, the practice of modeling, exploring the unknown, coming to new conclusions, and engaging with information with a sense of wonder, may provide a basis on which learners can draw on later in their lives.

3.2 Intellectual Humility and Failure: Embracing (de)Authority

How do we know what we don't know? One way is by searching, which leads to learning. It is through searching that we better understand the limits to our knowledge because we become more aware of what knowledge already exists. To be able to admit to those limits, and understand what they mean, requires humility. Intellectual humility is the ability to admit to one's not knowing—to acknowledge the periphery of one's experiential and learned knowledge. It is also the openness to be comfortable with those limits. As Slotta explains, information bubbles form when we refuse to see the limits of our information sources. Indeed, "In order to see the outline of one's bubble, one must have access to the limits of one's communicative world and to discourse one does not normally see" (Slotta 401). In this sense, the self-reflexivity that intellectual humility provides can help individuals also understand the ways information sources do and do not answer certain questions, and the limits of sources within wider information and knowledge-networks. Intellectual humility has many key elements which include:

an accurate assessment of one's abilities and achievements (not low self-esteem, self-deprecation), an ability to acknowledge one's mistakes, imperfections, gaps in knowledge, and limitations (often vis-a-vis a higher power); openness to new ideas, contradictory information, and advice; keeping one's abilities and accomplishments—one's place in the world—in perspective. . . ; a relatively low self-focus, a "forgetting of the self", while recognizing that one is but a part of the larger universe; an appreciation of the value of all things, as well as the many different

ways that people and things can contribute to the world (Tangney
np.)

One way to enact intellectual humility methodically, in the spirit the spirit of social justice, is to continually work to center perspectives that have historically been seen as “less” authoritative: those of women, those peoples of color, those of the disabled, those of queer folks, the disabled, and those of other minority groups which have not been historically represented. Being intellectually humble is to acknowledge that you are not always right. It is being ok with getting things wrong. And it is being ok with admitting to being wrong. This is especially helpful for students who are new to the university and the new ways of knowing it may offer.

In the book *Braiding Sweetgrass* indigenous author and botanist Robin Wall Kimmered explores the relationship of Western empiricist research practices to those of native peoples. In her chapter “Mishkos Kenomagwen: The Teaching of Grass” she structures a research narrative written in first-person memoir style as an academic article—introduction, methods, findings, discussion—thereby questioning the inherited genre, its constraints, and the assumptions the academy uses whilst disseminating knowledge. She writes of research methodologies taken from and informed by indigenous knowledge-making practices and explains that her scientist “colleagues might scoff at the notion of basket makers as scientists, but ... generations of data collection and validation through time builds up to well-tested theories” (159). Utilizing the “ecological knowledge of Indigenous peoples” (*ibid*) as a theoretical beginning, Kimmered and her graduate student designed a research project based in both Western knowledge-making practices and incorporating indigenous knowledge that had been handed down over generations. Validating both ways of knowing in the same chapter is an example of how critical curiosity—being critical of institutional knowledge and being curious about ways of knowing that might

disrupt or destabilize those processes—is essential to creating and embracing (de)authoritative research methods. This includes what topics are chosen to research, what methods are engaged, what sources are cited, who is centered in the work, and finally how the research is represented to audiences.

Accepting the limits of Western ways of knowing is an important part of intellectual humility and embracing (de)authority. Within academia at large, intellectual humility has become more salient in recent years as scholars have begun to question passed-down disciplinary knowledge, research practices, and scholarly traditions. Indeed, in the social sciences, “a large number of scientific findings have been disproven, or become more doubtful, in recent years. One high-profile effort to retest 100 psychological experiments found only 40 percent replicated with more rigorous methods” (Resnick). Such crises in disciplinary knowledge encourage researchers from all modes of scholarship to re-think their research methodologies and the assumptions that underline them. Modeling for students what it means for academics to become “actively curious about [our] blind spots” (Resnick) encourages (and helps them see that it is ok) to do the same. In this sense curiosity, and by extension, humility can help to create more ethical research dispositions.

Bringing the discussion back to source-finding specifically, enacting intellectual humility might also include framing source finding as strategic exploration, even failure. In the ACRL Framework one way to think about research is “as strategic exploration” meaning that “Searching for information is often nonlinear and iterative, requiring the evaluation of a range of information sources and the mental flexibility to pursue alternate avenues as new understanding develops” (np). In teaching and learning situations this might include space and reflection on failure into the curriculum. For instance, we could demonstrate information finding behaviors which use failure

as a lesson or as a jumping off point for a later, more generative search. What this does is show that research is iterative and requires stops and starts in the process. It also reframes the whole construct of failure which can be an important learning lesson for students. As Halberstam suggests in *The Queer Art of Failure*, there are good reasons to reframe failure, because in normative culture it “goes hand in hand with capitalism. A market economy must have winners and losers, gamblers and risk takers, con men and dupes” (88). Halberstam looks for alternative ways to think about failing, including considering it artistic. My suggestion is to focus on failure not as an opposite to success, but as an integral process in writing—an alternate approach to product-based pedagogy, and as such, a challenge to capitalist underpinnings of output culture. By so doing, we might subvert some of the consumerist undertones inherent in the production-based teaching of composition.

This focus on process is not new. Donald Murray argued in 1972 in his seminal “Teach Writing as a Process Not Product” that the process we should teach is “the process of discovery through language...the process of exploration of what we know and what we feel about what we know through language” (4). Along these lines, I wonder what it would look like to teach failure as a process, considering it generative? By centering messiness, we can re-frame the research and writing process to sidestep normative constructions of “success” as we build in scaffolded approaches where less-than-ideal outcomes are centered and celebrated. We can challenge a system of winners and losers by focusing on—even encouraging—moments where things do not go as planned. Indeed, all we can do as teachers is tell students that unplanned moments will exist,

even if the specific moments when the plan will fail are impossible to predict.⁷ Such unplanned moments provide rich opportunities for learning. We can document them in reflective activities, experience them together while co-searching in class, and we can focus on the iterative search/draft relationship as a never-ending process rather than assuming that a final product, or production, is always the end.

This focus on failure requires cognitive flexibility, another habit of mind discussed in the WPA Framework. In writing situations this might look like encouraging early exploration of a variety of source types, focusing on topics students know little about, framing the goal of research as exploratory, keeping the stakes of in-class activities low, and encouraging reflexivity on personal growth throughout the research process (Deitering and Rempel). The opposite of intellectual arrogance, which is fast, focused on self, and automatic, an intellectually humble stance is “slow, conscious, deliberate, and analytical” (Zmigrod et al. 201). While arrogance and reflection both focus on the self, the positionality is what differentiates them. An intellectually arrogant or closed disposition is researching to prove what the individual has already established or already believes. The reflective focus on the self questions and expands one’s beliefs within wider structures of information and knowledge-making. And this disposition is shown to help learners progress. While intellectual humility is a willingness to focus on what is not known, it correlates to stronger academic achievement (Wong and Wong). In other words, by focusing on research tasks that orient learners towards exploration, we are helping to cultivate practices which

⁷ This idea becomes very important in Chapter three, where I overview a community-engaged writing project which went through several iterations. Through trial and error, and constant revision, we finished the project, but it was through the failures that we learned and were able to better teach and learn together.

will help them excel scholastically, and I would like to believe, in lifelong pursuits as well; as Peter Elbow said, “life is long and college is short” (136 “Reflections on Academic Discourse”). Curiosity, paired with such an intellectually humble stance, rests on the realization that no one person can always be “right” and that “right” is often a matter of perspective and framing. The drive or desire (despite knowledge gaps and imperfections) to learn more is an integral part of ethical research—for it is a forever-seeking act.

Rather than approaching research as a fact-finding mission, or a way of proving one’s point, research, and research writing can be exploratory and insightful in unexpected ways. Intellectually humble research writers who rely on critical curiosity as an epistemology embrace openness and admit to, and even willingly accept, knowledge boundaries. Such a humble stance requires an information-literate thinker who is “open to being wrong and slow to be dismissive of information that challenges preconceptions” (Becker 191). This positionality leaves open the door to multiple directions for questions, diverse perspectives, and various interpretations. It is bolstered by the ability to accept that not knowing something is acceptable. We are always ever in the process of becoming, never arriving at a full knowledge. Interminably.

3.3 Within the Classroom and Without: Encouraging Critical Curiosity in Research

Writing

For all the talk about critical curiosity, what might it look like within and without the composition classroom? A major voice in composition and research writing pedagogy, Ken Macrorie, developed the I-Search paper in the 1980s and it has much in common with what I have argued here—that research writing is not objective, that curiosity is needed as part of an ethical

research project, and that focusing on the research process is as important as the final product. An I-Search paper is organized around a question that is important to the reader, is less formal than other research projects, and incorporates primary research (interviews) along with integrated information objects as part of the writer’s analysis. An I-Search paper is narrative in nature and focuses on the way the question is answered, or the research path, alongside the writer’s findings. Indeed, in his book about the I-Search paper, Macrorie enacts his own methodology by narratively describing how he developed the paper, giving examples, and providing insights into his own discovery process. He calls his book *The I-Search Paper: Searching Writing* a “context book” rather than a “textbook.” The genre, and his book, he claims, “grabs hold of the word ‘authority’ and shakes it to find out what it means” (preface np). In this sense, Macrorie and I are engaged in the same work: questioning authority, information retrieval and use practices, and knowledge making. We also both focus on curiosity as a precursor to knowledge-making.

Information discovery platforms have come a long way since the 1980s, though, and information professionals and compositionists are interested in how to teach research both inside academic settings and exploring writing without the university. What might an updated I-Search methodology look like with critical curiosity in mind, and with the internet as a resource? Alvey et al. propose an updated iSearch paper which takes into account the Web 2.0. They contrast their approach with Macrorie’s process. Figure 3 is taken from their paper “From I-Search to iSearch 2.0” and shows the different approaches to the research and writing process:

I-Search	iSearch 2.0
Topic finding	Messing about
Blend of known and unknown	Edge of knowledge
Personal stance	Social negotiation of knowledge
Narrative	Multiple distributions
Source documentation for publication	Source tracing
Classroom as audience	Publishing out

Figure 3: Alvey et al. Compared to Macrorie

The iSearch 2.0 approach harnesses the complexities and authorities of online information ecosystems—engaging in the ways people already are researching on the web. In other words, in addition to curiosity, it brings a critical stance to the composition process. Question-based rather than thesis-driven approaches mimic how young people use information discovery platforms and queries. Exploring the edge of their knowledge helps students understand how information and knowledge comes to be via research and iterative inquiry. Messing about also mimics how individuals interact with the internet—oftentimes starting with a purpose but getting lost in the networks of information. Alvey et al. write: “Instead of asking questions with known answers (that is, those that might be found in an encyclopedia), students work at the edge of knowledge, asking questions that are currently relevant and that will help construct new knowledge.” The internet is key to these searches as it already is a starting point for students to engage with online communities, information objects, and multimedia modes of learning (143).

iSearch 2.0 focuses on both the writing and information finding processes but in more contemporary ways. By teaching information evaluation skills and helping students publish out (to actual audiences) rather than up (to their teachers or classmates) they must carefully consider what authorities matter in their rhetorical writing situations. By focusing on information creation processes and the ways students are both consumers of and producers of knowledge, students become more information literate:

Young people often assume a socially critical stance in which they have a personal stake, as opposed to the impersonal stance we often see in students’ more traditional research reports. Rather than the usual measures of authority, the degree of social engagement becomes a measure of authority – how active a participant is in the

community gives that person status within the community. Students' identities and their identification of information and resources become part of the story, so that publishing in iSearch 2.0 involves two levels of communication: first, the story about the journey of finding a question and gathering information (the *process* of inquiry), and second, the *product* generated for dissemination to audiences. (Alvey et al. 145)

In other words, the iSearch approach builds on Macrorie's contextualizing of authority—creating students who both question subjective source authorities and are able to build their own expertise as they move through, and learn from, the research process.

To Macrorie and Alvey et al.'s work I add the very important self-questioning that I believe is central to a critically curious research disposition. I-Search and iSearch methods incorporate self-reflection and self-assessment as learners question what they know, where they can find information, and what they learn through the process. To this I add the work of assessing oneself as an information consumer and producer—what made me curious about this topic? Why did I start with the sources I did? What sources am I drawn to and why? Why am I leaning towards answering the question this way? How did the information I am consulting come to be, and how does that compare and contrast to the process I am using to create information myself? Am I surprised by anything I am finding and if not, why not? These kinds of questions might be analyzed alongside the work, or in a reflection after the paper is complete. I ask some of these reflective questions to students in my first-year writing study in Chapter 4 of this dissertation.

To cultivate intellectual humility and the ability to combat confirmation bias, this questioning of the self—one's own authority to research and write—along with building that

authority, is key to a critically curious stance. Further, questioning research structures and how the students' work and reflections fit into or challenge institutionalized ways of knowing would also be a helpful part of the process. The move towards “subjective” knowledge-making and research practices has been met with a good deal of apprehension in the academy. Known as “me-search” or using personal experience or reflection to center research question and derive answers is used by many academics in the social sciences and humanities and is part of the alternate methodologies used at times by scholars with marginalized identities. Though sometimes derided as “less rigorous,” me-search actively questions Western empiricist traditions and brings to the forefront questions of subjectivity and objectivity—questions that students can take up and interrogate themselves alongside the research they, themselves participate in.

These concepts can also be enacted in composition contexts that exist outside of the university classroom. In the next chapter, I work to demonstrate what critical curiosity might look like outside the walls of the academy, in an academically adjacent space. Public writing offers many possibilities to experiment with a critically curious research disposition, and how using this heuristic can align with inclusive, community-engaged research practices, even activism. Community-engaged writing requires a flexibility and cultural awareness, in addition to centering the needs of the community. In *Curiosity and Power: The Politics of Inquiry* (2021), Zurn distinguishes between “frivolous curiosity” and “eminently serious curiosity,” the former that asks “vacuous questions” and the latter is enacted by “somber-lipped academics, corporate investigators, or criminal courts.” Indeed, there are many ways that curiosity can go “wrong,” and multiple levels of privilege and power involved in who gets to “wonder” and “question” and “explore.” Community-engaged work is one place where the “fugitive curiosity” mentioned earlier in this chapter can take hold—a type of curiosity, Zurn suggests, that is “politically resistant...from

and for the margins.” Such resistant curiosity, Zurn argues, generally happens outside of institutions, in communities, and individually. It is defined by “collecting information about unjust conditions, problematizing an oppressive institution, . . . and imagining a future of greater justice and peace (128). At the end of the day, there is only so much work we can do within the walls of a semester-long composition class. We can help to contextually encourage curiosity situationally, to scaffold failure into assignments, and to encourage exploration and open-endedness. We can build in reflection and aim for self-awareness. We can question conventions and expand the notion of what a “research paper” can be. Community engaged work allows for an even wider applications of critical curiosity as praxis. It solidifies and reifies what is so often theoretically enacted in academic spaces: the research process as recursive, messy, and reflective of embodied experience.

3.4 Conclusion

Part of the work I am doing in this dissertation is to deeply question how individuals approach research writing and provide ways of thinking about source interaction which respond to growing information and ideological polarization. Understanding authority as constructed and contextual is to consistently question it (and the self) and also believe in it (and the self). While no research method will be free of bias, a questioning of the method even while using it, is integral in self-reflective inquiry—whether it be creating a research study, procuring source material for a literature review. Critical curiosity enables the individual to ultimately judge what is or is not authoritative, it does so in a way that places the individual within complex systems and situations wherein she must consider various viewpoints and constructions of truth in the process. In this sense, critical curiosity is neither embedded in hard truth or in complete relativism. Though it is

bound up in relations and contexts, it focuses on the relationship between the individual and the information, empowering individuals to unpack systems of authority as they assess information sources thoughtfully. Following Latour's logic which I introduced earlier, this positionality, at its best, allows for generation rather than reduction. Critical curiosity, then, is a needed concept because it does not center only on cynicism and doubt, but instead on questioning, wondering, and exploring. Critical curiosity shifts the analytical gaze from the information object itself, from the vacillation between "facts" and hard skepticism, to consideration of *information contexts* and the *researcher's relation* to those contexts.

In the previous chapter I posited that skepticism over source authority has led to, at best, a confusion over how to evaluate source material in writing contexts, and at worst, an uncritical impulse to draw into the self as the only evaluative authority since no source material can ever be completely trusted. Theories of post-truth have both unmoored learners from traditionally authoritative source materials but also have removed the onus from those students to think critically because, after all, how can anything be really known? If young people are overly relying on their own concepts of reality and truth to make assessments of what information is reliable, can critical curiosity, which is also a reliance on the self, actually help? This brings me to a central contradiction, or paradox, in my work: *young people relying on themselves to assess for authority is both a problem and an answer*. The difference between the problem and the answer lies in the positionality through which that assessment of authority takes place. What critical curiosity offers in these moments of evaluative practice is an evaluator who comes before a source in a moment of discernment, with a stronger awareness of how authority is constructed and contextual, the ways in which that piece of information was created, and the power dynamics of such. An evaluator discerns with a stronger, metacognitive awareness of the self and one's own positionality as an

information consumer. Relying on simple evaluative techniques⁸ without such a positionality runs the risk of either uncritically perpetuating systems of power or blindly accepting “truth” in the sources with which one is presented.

It is also worth noting that engaging in curiosity in regard to authority has the potential to de-center our power as instructors in the classroom. We may come up against moments where student conclusions will butt up against our own. In these moments we can engage in critical curiosity as an orientation toward our student’s work. Helping students, and ourselves, to become conscious of the ways we assess for authority and use criticality as a lens to aid in such assessment, is the work of critical curiosity. It encapsulates a curiosity regarding the self, and the self’s relationship to information objects. Critical curiosity is not only about asking research questions, but it is also about asking questions of the systems which provide research information in the first place. Questions along this line of thinking might include the following: Why do some kinds of information make me uncomfortable? What audiences would find this source authoritative and why? Who is this source created for and what does it say about ideology and power? What information sources am I drawn to and how do and why? What sources do I avoid and why? What notions about authority have I inherited and where do they come from? What is *my* authority in this rhetorical situation? What do I still need to learn regarding this research topic?

⁸ In recent years information literacy has moved away from teaching rules of thumb, like the infamous CRAAP test to teach students how to evaluate information. The CRAAP test has students rate information sources by Credibility, Relevance, Authority, Accuracy, Purpose. While these are important criteria to use when assessing information, if not paired with higher-level critical thinking skills, students have a hard time transferring these competencies to complicated online source materials. Sye and Thompson trace the evaluation of how source evaluation frameworks like the CRAAP test are changing.

As a researcher, I must also practice this disposition. In my own way, I seek to model the intellectual humility I ask we engage in our classrooms. I forward this exploratory work with curiosity at its center, realizing it cannot be the answer, but only an option in a multitude of possible ways composition teachers engage students in research writing tasks in the information age. In this sense, I continue to wonder how curiosity can be cultivated through curricular design. I wonder how it can be quantified and assessed. I wonder what might be missing from my arguments and, given my blind spots, how I can better be open and inviting of various viewpoints in my own work. I also wonder what privileges I have to be open and curious that those in my position may not have, and how that affects research dispositions of diverse communities.

Critical curiosity is an uncomfortable positionality of empowerment. It is uncomfortable because it always begets more questions. It is empowering because it allows individuals to understand and potentially alter the information ecosystems in which they take part. Criticality is the opposite of blindly accepting one's own narrative as *the* narrative. One's own needs as *the* needs. One's own reality as *the* reality. This quest for alternate ways of knowing bolstered by critical curiosity need not delegitimize evidence-based scientific inquiry, but instead, can acknowledge that different questions require different methodologies. Methodologies include empiricism (those that describe the world), and criticality (those that seek to interrogate and change the way that world is understood to function). Both have place in contemporary knowledge-production systems. As such, the outcome is not to create another hierarchy of knowledge, but instead to place information needs within information contexts. This is not an "anything goes" approach like where individuals retreat into believing whatever they want because they do not know how to pinpoint authority markers. Instead, it is a thoughtful engagement with how information is created, how it is curated, how it is culled, how it is circulated, how it is consumed,

and how it is re-composed by the student-researcher. Critical curiosity requires a new approach to information created in the academy which resists pedestalizing said information or completely discounting it. Critical curiosity sees authority as fluid and dynamic, but still important. I ultimately hope that this disposition might be one of the tools able to respond to the rapidly changing academic information environment with which scholars like myself are scurrying to keep up.

4.0 Chapter 3: Information Justice and Community-Engaged Writing: Hype Media Edits

Wikipedia

4.1 Introduction: HYPE Media and The Year of Data and Society at Pitt

In fall of 2021 I approached Pitt English faculty member Khirsten Scott with an idea for a grant proposal. Every year Pitt’s Office of the Provost provides competitive grants for initiatives across campus having to do with a common theme. In 2021-2022 that theme was “The Year of Data and Society.”⁹ Dr. Scott, along with her collaborator from the School of Social Work, Dr. Jaime Booth, were working with a group of Black girls from Westinghouse High School in a Pittsburgh-based afterschool media literacies program called HYPE Media. As a new PhD student in 2019, I was part of the inaugural group of grad students who helped spearhead this community-based writing project. After a Covid-19 hiatus, Dr. Scott and Dr. Booth were once again meeting with the afterschool program in person. Westinghouse High School is located in Homewood—an

⁹ From the Office of the Provost at the University of Pittsburgh: “Through the Year of Data and Society, we celebrate existing expertise and practices at Pitt in data methods and data studies, increase our awareness of what socially responsible data practices look like in all domains, and develop strategies for areas where we can grow. The Year of Data and Society provides the University of Pittsburgh an opportunity to think critically about the data we collect, use, and leave behind as traces, through our scholarly work, education, institutional operations, and digital lives. We will explore the societal implications of data and its uses, recognizing that data can both empower and marginalize individuals and communities. Our year-long conversation and supported activities will focus on what MIT professor Sarah Williams calls “data action,” or responsible and ethical data practices that benefit the public good” (“Year of Data and Society”)

historically Black neighborhood in the city. I wondered if my work about online source authority and research writing might materialize into a project fundable by Pitt's Year of Data and Society as a collaborative project with HYPE Media. Specifically, I had my sights set on Wikipedia as a compelling study in research authority, source-based writing, and information production. We proposed the idea in October of 2021 and received an \$8,000 in grant for the project to be completed by the summer of 2022. The project we pitched was a re-vamping of the Westinghouse High School Wikipedia page with the HYPE team gathering information, crafting content, editing, sourcing, and publishing a revised entry.

It was important that the Wikipedia project funded by Pitt also fit into the wider objectives of HYPE Media (Homewood Youth Power Engaged). To provide context, HYPE is a critical literacies program focused on youth-led story-making possibilities that respond to stigmatized narratives of Black girls, Black women, and Black communities. Participants in the program are recruited from Westinghouse High School (also known as Westinghouse Academy) in Homewood. The project aims to address both the stigmatized neighborhood narrative of Homewood, and the possible internalization of that stigma by engaging youth in a critical analysis of existing narratives about their neighborhood and teaching them how to use different media platforms to revise those narratives. This re-narrativizing is sorely needed: in a recent survey, housing professionals working in the city of Pittsburgh were asked what Pittsburgh neighborhoods they considered "bad." Homewood was by far the most frequently mentioned, with 57% indicating that they considered it to be "bad." Studies have shown that the racial and economic context of a neighborhood impacts whites, Blacks and community leaders' perception of "disorder" in neighborhoods, and that cognitive bias rather than objective conditions are driving these perceptions (Sampson & Raudenbush). Stigmatized neighborhood narratives not only negatively

impact residents' identity and experience of discrimination and exclusion (Anderson; Link & Phelan) but also the willingness of outside actors to invest in neighborhoods resulting in fewer resources (Besbris, et al). Historically, youth have not been given the opportunity to actively participate in collecting, analyzing, and disseminating information that shape these narratives; however, new media platforms have made their participation possible in ways that they were not in previous decades. Wikipedia as a platform is a particularly compelling way to do this as it is a widely used gateway of information that is easily accessible and open to public editing.¹⁰

The HYPE Wikipedia project was conceived as an information activism project, working to consider how power, writing, and information coincide online. It also provided a rich space to better understand the collaborative nature of community engaged writing programming, where projects are driven by a group, rather than by individuals.¹¹ HYPE's out-of-school presence is driven by the participants' interests and fueled by their energy. All work is done collaboratively and with group buy-in. Wikipedia as a platform has a similar collaborative ethos. As a site of critical inquiry, Wikipedia complicates ideas of research authority being crowd-sourced rather than "traditionally" authoritative where authorship can be traced, and writer expertise corroborated. While much scholarship exists discussing Wikipedia's reliability, a growing body of research is interested not in only what content is freely available on Wikipedia, but also in what content and

¹⁰ Parts of this paragraph came from the Year of Data Society grant proposal written by Dr. Khirsten Scott and Elise Silva.

¹¹ Community-engaged programming, or service learning "entails a collaborative enterprise between students and the community that involves explicit learning goals, a response to genuine community needs, youth decision-making, and systematic reflection on the part of the students" (Lavery et al. 4). In this sense it is group based, collaborative, and driven by community needs rather than institutional objectives.

participants are missing (Hill and Shaw; Ford and Wajcman; Shaw and Hargittai). To engage with these ideas, the HYPE Wikipedia project invested in critically considering absence. We considered not only what information we found readily available, but instead what information was hard to find or missing. By filling these absences consciously, HYPE Media's Wikipedia editing project focused on changing the definition of information integrity to be more inclusive and more expansive. Changing the narrative from "Wikipedia just lets anyone edit" to "we can enable everyone to edit Wikipedia" is a major shift in perspective and relocates the value from one of elitism to one of inclusivity.

In this sense, it was not the openness of the source we investigated through our editing, but also the power structures and layers of authority which influence who and who does not participate in this form of research writing. The editors of *Critical Point of View: A Wikipedia Reader* ask how scholars can widen their lens on what questions they consider about Wikipedia's place in a wider information ecosystems:

What does Wikipedia research look like when the focus is no longer solely on the novelties of (open) collaboration or on whether Wikipedia is trustworthy and accurate? ... What new areas of enquiry are important and, indeed, possible once we change focus? And most importantly, what is the role and substance of critique when directed towards a project that claims to be accessible to (almost) anyone and free to use, copy, and contribute to – when it is overseen by a non-profit and driven by an overarching vision seemingly in perfect harmony with Western Enlightenment? Indeed,

how to say anything critical at all in light of the anticipated response:

‘If you don’t like it, please come and change it – we’re open’? (10)

Wikipedia, like the web itself, is full of contradictions. It is both a democratic, open place, and it is a place that re-inscribes power structures, marginalization, and oppression both in terms of who is represented and how they are represented. Black feminist digital scholars like Ruha Benjamin and Safiya Noble point out the ways that seemingly benign, neutral systems—like the internet or algorithmic computing—are biased and very much influenced by wider cultural realities. Wikipedia does not escape this pitfall. It is paradoxically easy to edit and difficult to change culturally and structurally. Wikipedia claims to be neutral without always interrogating the assumptions behind said neutrality. While Wikipedia does not escape the problems that exist in wider digital spaces, the work of reimagining “science and technology for liberatory ends” lies in social justice activism (Benjamin 195). The HYPE Media project sought to delve into contradictions and paradoxes—spurring critical questions about inclusion, attribution, labor, and rhetorical positioning online.

With this context, Dr. Scott and I devised a seven week-long Wikipedia editing project where the participants would research and develop content related to their high school. We wanted to focus on something the participants would already feel comfortable talking about. As Westinghouse is located in Homewood, developing the school Wikipedia page allowed for a shared community experience as all the HYPE girls attended the school. It also posed significant challenges. These challenges included a lack of easily findable source material about the school as well as the girls’ attitudes towards Westinghouse. The girls were resoundingly negative about their experience at the school, oftentimes comparing it to a prison. Indeed, much of HYPE Media’s activism is based within the school pushing for productive changes so the students can feel safer

and freer in their scholarly environment. In terms of the Wikipedia project, balancing participants' need to process their experiences with Westinghouse alongside careful, rhetorical positioning online helped us enter into discussions about objectivity claims and different objectives for different writing genres. This rhetorical use of objectivity becomes very important in my next chapter, a study on first-year college students' orientation towards source authority.

When we began the project, the page was under-developed. This lack of content gave us an opportunity to talk about what Wikipedia pages get the most attention and why, and who has the most time to contribute free time and labor to editing and why. As an example, we compared the Westinghouse Wikipedia page with my suburban, and majority white and Asian high school's Wikipedia page. My alma mater's page was significantly more built out. Information availability, it turns out, is a product of privilege. And yet, as I will discuss later in this chapter, information lack does not always turn out to be an information desert, or a deficiency-based model of information availability. In this case, our difficulty in finding information online led us to explore more community-based places of information gathering rather than research methods I was more accustomed to using (like sitting behind a screen searching for sources).

Before our edits on the Westinghouse page, there were only three sentences in the Introduction, a short Feeder District section, a two sentence History section, and a Notable Alumni section with a warning from Wikipedia that some of the names were not verified (See Figure 4). Looking as far back as 2016 we could see that there was at one time more information on the page, which was later removed, likely due to lack of sources (Figure 5). The Westinghouse High School page provided us with a unique opening to add substantial content since there was so little to begin with. We were also able to write without as many confines as an already-established page may have had. The participants worked to re-arrange content and think carefully about how information

was presented. In terms of counter-narratives and storytelling this meant they could imaginatively and carefully craft the page. They acted as subject experts creating their own information ontologies including categories and subheadings that made organizational sense—and they combined this expertise with secondary research and verified sources. Along the way they also realized how little they knew about some aspects of their school including its longer history and impact in Pittsburgh. This included mid-century racial dynamics, longer immigrant histories, and current stigmas that the wider history of the school significantly complicates. The history and student makeup of Westinghouse follows broader immigrant and labor histories of the Pittsburgh area as well as white flight to the suburbs which resulted in current segregated racial dynamics in many urban spaces across the United States.

Such moments of surprise and discovery were important for the participants and for me, a researcher trying to adopt a critically curious research disposition that would be modeled in my methods and approach to the experience. In this vein, this chapter seeks to consider various authorities in terms of researchers, research subjects, and source objects. Ultimately, in my exploration of research authority and my use of (de)authoritative research methods in research writing contexts, I seek to include discussions of both process and product. In other words, this chapter is just as much about the methods and process by which the work was executed as it is about the output and materialization of our efforts. It is both a study in, and an example of critical curiosity and (de)authoritative research—all the while highlighting the opportunities and difficulties of these complicated positionalities and how they might look in community-engaged spaces where intersectional identities are at play. In addition to overviewing the program, the process, and the final written product, this chapter sets up theoretical conversations regarding information justice as an underlying commitment in this project. Information justice is an

important precursor to the discussion because it urges us to consider diversity and representation in both information objects and in the processes that create them.

Westinghouse High School (Pittsburgh)

From Wikipedia, the free encyclopedia

For other uses, see [Westinghouse High School \(disambiguation\)](#).

Westinghouse High School, also known as **The Academy at Westinghouse**, is one of 10 high schools and of four 6-12 schools in the [Pittsburgh Public Schools](#). It is located in the [Homewood](#) neighborhood of [Pittsburgh, Pennsylvania](#), and is named for Pittsburgh resident [George Westinghouse](#). As of October 2019, Westinghouse has an enrollment of 697 students, 95% of whom are African American.^[3]

Contents [hide]

- Feeder district
- History
- Notable alumni
- References
- External links


Feeder district [edit]

The Pittsburgh neighborhoods served by Westinghouse High School include East Hills, East Liberty, Highland Park, Homewood North, Homewood South, Homewood West, Larimer, Lincoln-Lemington-Belmar, and Point Breeze North, along with the neighboring community of Wilkinsburg.^[7]

History [edit]

Westinghouse High School opened in 1917. During the 2011-2012 school year, the school absorbed students from the [East Liberty](#) neighborhood due to the closure of nearby [Peabody High School](#).^[8]

Notable alumni [edit]

 This article's list of alumni **may not follow Wikipedia's verifiability policy**. Please improve this article by removing names that do not have independent reliable sources showing they merit inclusion in this article AND are alumni, or by incorporating the relevant publications into the body of the article through appropriate citations. *(July 2019)*

- Tom Casey - Professional football player and [Canadian Football Hall of Fame](#) inductee
- Chuck Cooper - First African-American drafted in the NBA
- Frank Cunimondo - Jazz pianist^[9]
- Erroll Davis - Education administrator and chancellor, [University System of Georgia](#); businessman^[10]
- Jim Ellis - Swim coach and subject of the feature film *Pride*
- Chauncey Eskridge - Attorney who represented Martin Luther King Jr. and Muhammad Ali; judge^[11]
- Erroll Garner - Jazz pianist and composer^[12]
- John Greene - NFL player
- Jon Henderson - NFL player
- Ahmad Jamal - Jazz pianist^{[12][13]}
- Dave Kalina - NFL player
- Mose Lantz - NFL player
- Tony Liscio - NFL player^[14]
- Bill Nunn, Jr. - Administrator, Pittsburgh Steelers; newspaper editor and sports writer
- Wendell H. Phillips - Member Maryland House of Delegates
- Maurice Stokes - NBA player^[15]
- Billy Strayhorn - Jazz composer^[16]
- Adam Wade - Singer, musician and actor; first African-American game-show host
- Mary Lou Williams - Jazz pianist/composer-arranger^[17]

Figure 4: Westinghouse High School Wikipedia Page Captured October 2021

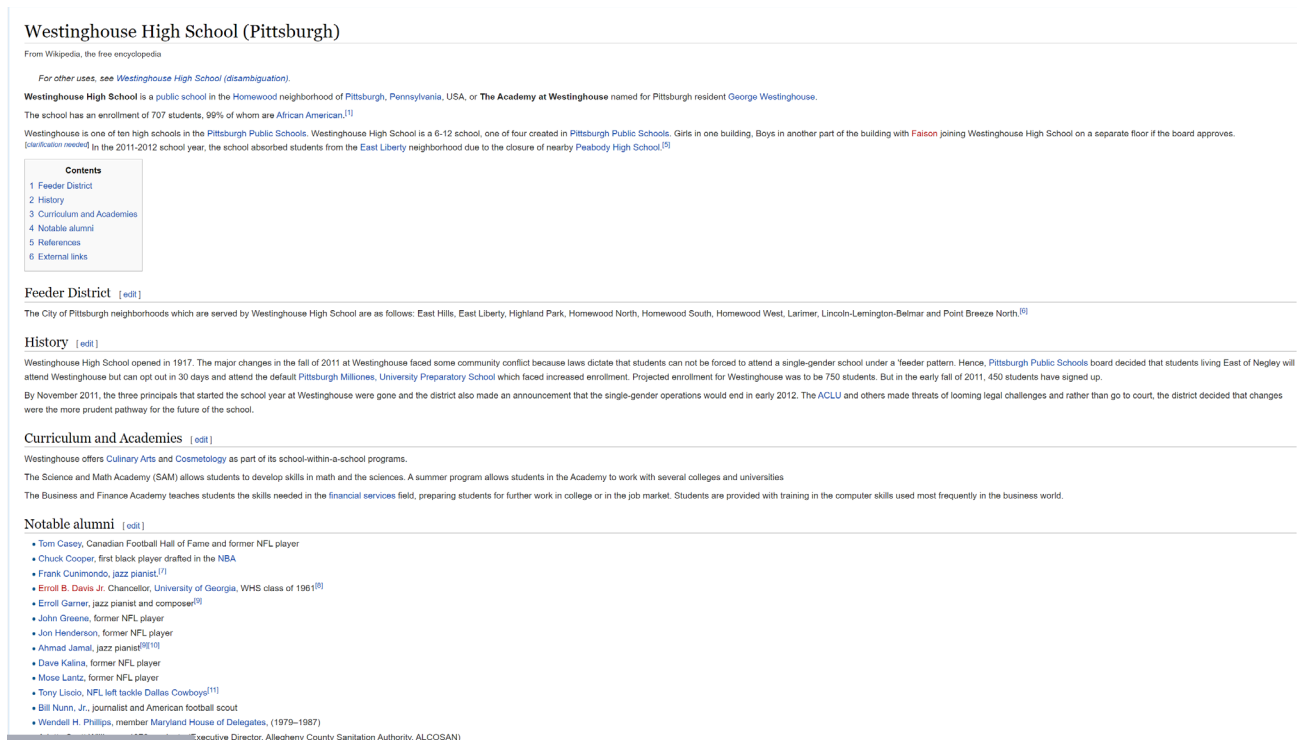


Figure 5: Archived Westinghouse High School Wikipedia Page from April 2016

4.2 Information Justice and Wikipedia: A Community-Engaged Approach

At the forefront of my mind when pitching the project was a burgeoning notion of information justice—social justice applied to information ecosystems. While a great amount of research has been completed on the digital divide,¹² something we had to account for when buying

12 Interest in the digital divide in the mid-90s and research has blossomed around the issue in the quarter-century since the term first appeared in newspapers, attempting to define and even fix a perceived technological divide between classes. Jan van Dijk, a communications researcher and founding voice in scholarly conversations surrounding the divide reports that initial research focused on physical access to media-technology, while more recent research has focused on the skills and usage (literacies) needed to access and use media technologies (Dijk “Chapter 1”).

iPads for the participants to use to complete the Wikipedia work, technology is only one part of information creation practice. In other words, while having access to quality information is part of information justice, another less talked about part is *contributing* to information creation. Information access includes the technology needed to access digital sources of information and also the economics involved in paying for information hidden behind paywalls. But information justice is not just about access—it is about *creation*—and creation involves creativity and curiosity. In a broader sense, information justice it is about being involved in making and sharing information—and I narrow that to my field of expertise here as research, or source-based writing. In this chapter, that source-based writing is Wikipedia editing. This idea of creation and dissemination dovetails with critical notions of counter-storytelling and re-narrativizing via media platforms that HYPE Media’s founding literacy outcomes champion.¹³ Research writing comes in many forms and for many purposes—argumentative, explorative, and instructional. In this program we wished to combine activism with visible and shareable information-creation in the form of Wikipedia articles. Access to technology which allows for this activism is certainly part of the wider story, but surely not the complete one.

Scholars studying the digital divide find the notion inscribed into problematic power structures. The digital divide refers to the chasm between technology haves vs. technology have-nots. Technology have-nots are the underprivileged who have less access to technology, and in the context of my research, less access to information. Indeed, the term was introduced in the 90s as a

13 Chapters 1 and 2 overview counter-story as a means to “centralize the experiences of the minoritized” centering their lived experiences and stories (A. Martinez, *Counterstory* 112). Counterstories offer alternate perspective that challenge dominant narratives.

problem to solve—if there were just more technology, the logic went, the gap would be bridged, and inequality fixed. Virginia Eubanks points out the faulty assumption that “technological innovation [would] automatically lead to social progress” and that this assumption “keeps the focus on *stuff*, on consumer objects, which fits well in the context of global capitalism” (36). This model is deficit oriented. It is oriented around a perceived lack of the technological have-nots which re-inscribe the poor, rural, elderly, disabled, and Otherly marginalized people into dualistic and hierarchical power structures. The concept re-emerged during Covid in relation to internet access specifically. The conversation revolved around student online learning and accessible health information on the web. Locally, access to technology and the internet was an enormous barrier to learning in Pittsburgh Public Schools, which affected the HYPE Media participants. Indeed, in a 2022 school survey close to 10% of households in the district did not have access to the internet, and in Homewood more than 70% of households did not have access to the internet (Rihl).

Intersect this discussion with a discussion of race and the politics become clear—a deficit model makes Black, impoverished individuals residing in Homewood the ones needing uplift. In the case of Pittsburgh Public Schools, it also puts the blame of a slow start to online learning as the school district had to “solve” the problem of too few devices to go around, and spotty internet access. How might we change this uplift ideology (Banks 36) from a consumption-based model where more technology or access to the internet will “save” the have-nots to an asset-based model which focuses on what communities are already doing, and already bringing to the table? While access is an important tenet of this discussion, uncovering, making visible, and centering the ways in which Black folks are already engaged in information creation and technological spaces is key. And encouraging further participation is likewise important. Engaging diverse communities in information creation focuses on what individuals bring—what un-quantifiable expertise they have

to offer, which may not be found anywhere else. In other words, information justice must focus on the entirety of the information production process, not just the commodified output. It became clear very early on in the project that any project success would have to start with the participants and their interests, wishes, and areas of expertise/authority—for that is where they felt most comfortable contributing to Wikipedia.

The digital divide is not the only way information justice has been conceived. The open access movement is central to the idea of information justice, but like the digital divide, it focuses on the economic ability to access data and information, not necessarily how that information comes into being. Wikipedia is a unique resource within conversations surrounding open access and free information. Heralded for its liberating, even “emancipatory potential” (Hansen et al. 38) and snubbed by some as untrustworthy due to its populist approach of letting anyone contribute (Becker), attitudes towards both contributing to, and using the source, has historically been fraught. I overview this conversation in Chapter 1. In terms of “open” information, anecdotally every time I ask students what they’ve been told about Wikipedia (including the participants in HYPE Media’s Wikipedia editing project), the answer is resounding “don’t use it.” While research suggests these attitudes are changing in favor of Wikipedia (Soules 216), young people are often cautioned by their K-12 teachers not to use the website due to worries about reliability.

The idea that open information is of lower quality is one that needs to be carefully examined. These negative attitudes towards Wikipedia are corroborated by the acclaimed Stanford History Education Group’s Civic Online Reasoning study which asked students to compare a Wikipedia article on gun control with that from a Duke professor. The professor’s website used a .edu address, but was filled with opinion-based takes on the gun control issue and was more of a personal blog than it was a carefully-researched overview of the issue. I return to the tension

between opinion and fact in the next chapter but suffice it to say here that the Duke professor's website did not fill a research-oriented information need to understand the wider conversations surrounding the gun control debate. The Wikipedia article, however, was semi-locked, meaning it was carefully monitored by Wikipedia editing teams. Young information consumers did not understand these nuances, however, and stuck to the blanket statement that all Wikipedia articles were "bad," with most stating that it was better to start their research on the duke.edu webpage rather than Wikipedia page (Breakstone et al). Information evaluation practices are very linked to understanding, and participating in, information creation as a process. In other words, the more young people understand about how information is created (by making it themselves) the better they will be able to evaluate and navigate the information ecosystems which surround them. The more they understand rhetorical positioning, the more empowered information consumers they will become.

Ultimately, one benefit in involving more people in the information creation process is that they will be better able to decide for themselves what information to trust because they will better understand how information creation happens. It is easier to teach complete avoidance, and significantly harder to teach how crowdsourced articles are created, maintained, revised, and how to evaluate them conscientiously. This is problematic because even if students report that Wikipedia is a "bad source" they most certainly are using it. In fact, research shows that close to 90% of students report using Wikipedia to help them in their studies (Selwyn and Gorard 30). Compositionists who study Wikipedia have long been interested in its pedagogical potential even with knowledge of its gaps. They are particularly interested in how it provides examples of revision. Indeed, because older versions of the page are saved, Wikipedia is "an archive of its own writing" (Purdy, "A Decade of Writing on Wikipedia") showing iterations throughout time. The

HYPE Media project, through community-engaged pedagogy, examined the page's history and archive to critically consider what users were participating in the information creation process and in what ways. Unlike other pages on the web where such user engagement is opaque, the archival nature of Wikipedia allows for an information justice lens to consider who has participated in the page's history and what that suggests about the page's content. This can be both an evaluative technique, and a pedagogical tool. It also relates back to the importance of balancing criticism and curiosity while interacting with information sources.

In other words, undergirding the HYPE Media project to edit Wikipedia was a commitment to *interrogating* the platform at the same time as we were *contributing* to it. Bringing a critical lens to Wikipedia helped us uncover some of the important ways information justice concerns can interact with Wikipedia as a platform and the value judgements people place on the information therein. With each interaction we wanted to engage, complicate, and strengthen the participants' relationship to the information they consumed daily. A particularly important moment of buy in came when participants understood not *what* they would be editing, but *why* they were editing it. Initially the girls were very vocal about what they'd been told about Wikipedia—that it was a bad source, not to use it, that anyone could edit it, and that it was filled with misinformation. Why edit such a source? After learning how common Wikipedia usage is, the stakes became clearer. To tie the matter into their personal information behaviors, we examined our search histories to see when we last accessed the website. For most in the room it was very recently—for me it was just a few hours previous.

Wikipedia is consistently one of the ten most visited websites in the world, and even higher for English language pages (“Wikipedia,” Wikimedia Foundation). While the promise of free information is a beautiful one, the girls were surprised to find out that there were significant

disparities in the information represented. An information justice lens uncovers such inequalities and seeks to address them in the form of information creation. Indeed, we discussed that while free information may mean there is no need to pay for it, it doesn't necessarily equate to free-flowing and representative. The girls were particularly interested that the gender and racial gap in Wikipedia editors is significant, skewing content towards issues that represent the editors' interests and world views ("Wikipedia" Britannica; "Racial Bias on Wikipedia"). Indeed, only "10-20% of [Wikipedia] editors are women" ("Wikipedia" Britannica). Perhaps the most telling moment was when the youth discovered Steve Pruitt, the famous Wikipedia editor who is well known for making the most Wikipedia edits in English. I asked if they had ever heard of him and within seconds of them looking him up, the room was in an uproar. Pruitt has edited "one-third of all English Wikipedia articles. He has also created more than 33,000 Wikipedia articles" ("Steven Pruitt"). His influence on the platform is enormous. The girls' reaction to this reality was visceral: "Who even *is* this guy?" I explained that he is a 38-year-old white man from Texas who went through an unemployment spell and filled his time editing Wikipedia. As a 36-year-old white woman at the time of this project, the resonance was particularly poignant for me realizing the ways in which my embodiment projected a racial privilege and representation both in the room with the participants and on the Wikipedia platform as well. In terms of re-casting authority, it became important for me, in an information justice sense, to listen to the girls' feelings about Pruitt's overwhelming influence on the open web and how that affected them.

The participants were very vocal about the fact that they had nothing in common with Pruitt and were adamant that if he could edit Wikipedia pages, they certainly could as well. Further, I mentioned that when I tried to create a Wikipedia education page for them, that WikiEdu said they generally advised against high schoolers editing Wikipedia and removed my course. Instead,

WikiEdu preferred students younger than college age focus on Wikipedia evaluation techniques as opposed to editing. I learned very quickly that as soon as you told this group of young women that someone thought they couldn't do something, they most certainly would prove them wrong. In the face of Steve Pruitt and WikiEdu, the girls got to work.

Focusing on what they brought to the table, rather than what institutions thought they lacked due to age and intersecting identities, we began to build understandings of experiential authority. Their own daily interactions with the high school became the basis upon which they built confidence to contribute to the platform. As subject experts, they realized that the content they could create—even though it had to be independently verified—was meaningful. While objectivity is an issue when editors have a personal connection to the Wikipedia page, we were able to discuss how to adopt a neutral tone about the school even while not having neutral experiences in the school. Ultimately underrepresentation in terms of age, gender, and race considerably bolstered the girls' buy-in.

Overall, critical Wikipedia engagement investigates systems of power as part of an information justice lens. Spaces like Wikipedia can become microcosms of study—where larger understandings of power, influence, and oppression can be unpacked. Alexandria Lockett, professor at HBCU Spellman College, describes using Wikipedia as a way to teach Black female students about their own authorities, while not discounting the very real risks, like bullying or harassment, Black women often experience online. The intellectual challenge of contributing to such an imbalanced space is a draw in, and attests to, the buy-in I describe the HYPE Media participants experiencing at the beginning of our project. The satisfaction in “representing ‘notable’ knowledge from individuals and communities that are too often invisible in disciplinary sites of scholarship and teaching” is both a challenge and a motivational factor when editing

Wikipedia with an information justice lens (Lockett). Involving diverse editors in creating diverse content is part of an holistic approach towards inclusive knowledge making practices on Wikipedia. When looking at knowledge and information disparities on Wikipedia, Lockett urges her students to understand such gaps in wider experiences—like their academic ones. And she urges Black women to recognize and use their unique authorities as they edit. She describes her experience teaching Wikipedia in the classroom as such:

The issue of editorial authority depends on the extent to which prospective Wikipedia editors feel as if the community recognizes their knowledge as notable enough to be represented in the space....Everyone in the room had a distinct and valuable experience. Everyone knew something that they could contribute. Everyone should feel free to participate (in editing) because it was mutually beneficial to themselves, the knowledge they added to the space, and those who could build on it over time. Knowledge is not a fixed entity that is given to you by others. Its production defines the ideal meaning of education, which is a fluid, temporal and embodied process of discovery and assertion. (Lockett np)

By tying Wikipedia to knowledge making practices Lockett points directly to the wider educational and societal implications of this work. Information begets more information. Knowledge begets more knowledge. And the information and knowledge that exist heavily influence that which comes after it. The act of editing Wikipedia is an act of editing information and knowledge structures that are often consulted. Like the wider HYPE Media objectives point to, the stories and information that exist online about people and communities deeply influence how even the

members of those communities feel about themselves. But knowledge and information is not fixed, and the ever-growing Wikipedia community bears testament to the fact that revision is possible even within the tensions of its own contradictions.

Thus far in my dissertation I have unpacked the complicated and situational authorities found in online source material. I have questioned institutional authority and suggested that a critically curious research disposition is one way to evaluate source material, and approach research and source-based writing genres. This chapter enacts much of that work in a university-adjacent space, with the focus on me as a researcher, and the young people who participated in the project. The shift in my dissertation from theory to praxis is important as it shows how some of these ideas might look in different constructions of authority, and with different embodiments of criticality and curiosity. Information justice is one way that we can question information authorities and lean into differing contextual (de)authorities to create more open knowledge-producing processes. In my proposing more focus on the methods and processes by which information is created, I am ultimately suggesting that a holistic view of information creation processes needs be part of any activism regarding information justice. Jeffrey Johnson forwards his sense of the information justice movement by saying that any theory of information justice must take into account diverse populations. The best information systems, according to Johnson “are designed with the participation of all actors who are part of the system, including those who will serve as the data points and as the [subjects] of decisions based on the information” (270).

One of the ways that the HYPE Media program tried to practice this form of information justice was in the facilitation model of engagement. Rather than a teacher/student relationship, HYPE program facilitators act as mentors, friends, and members of the group. While Dr. Scott and Dr. Booth outlined each session in advance, the interests and needs of the girls was always

forefront in each session. Each session started with feelings check-ins where girls could decompress while they had a snack and when there were major issues that arose, the girls would talk about those things and spread-out work amongst themselves to make decisions and create project headway. In this sense the project was designed not as a project that the girls would do, but as a project we could co-create together. Maintaining focus on the girls throughout the project became a study in information justice for me as we centered the girls' authority and knowledge about their school to develop their skills as research writers.

4.3 Overview: What We Did and How We Did It

4.3.1 Methods

This section will overview the program and the methods, approaches, and final outcomes of our process. The lens I use to overview the work is that of participant-observer and auto-ethnographic research. Because this work is not under the IRB purview, I do not study the participants themselves for generalizable knowledge. Any reflections I include about the participants are to better understand how our program could be honed and better executed in the future, or how similar programs might function. In terms of attributing the participants—something I care a great deal about doing as their labor was integral to the program and this chapter—I use sentiments the youth shared as part of a reflection day we did at the end of the project. I avoid names to maintain their privacy. I also include personal reflections from myself as I kept a journal throughout the project of my thoughts, feelings, and observations. Exchanges between me and my mentor, Dr. Scott, are also shared here with her knowledge and permission.

Looking back on these reflections and exchanges helped me identify themes and takeaway messages that I think are important for compositionists to consider when engaging in public work and community-based writing programs. They have been helpful in my personal growth as I try to enact the open stance of a critically curious research writer.

As this chapter is both a study in, and an example of (de)authoritative research methods it bears mentioning that any method has benefits and drawbacks that must be carefully weighted. All methods answer different questions, and all methods elicit different sorts of responses. The benefits of participant-observer methodology are that the method puts me in the heart of a group dynamic. It also makes me a less objective researcher, though research is never fully objective. I return to this tension between objectivity and subjectivity in Chapter 4. So, in a way, a participant-observer is as honest as possible about the role of the researcher in relation to her research matter. Autoethnography is similar—it is slow, personal, and focused on how a researcher interacts with the world around her, and is aware of the nuances and ethical concerns of imperfect humans conducting imperfect research in conditions that are likely to change and morph. Indeed, “as a method, auto-ethnography is both process and product.... Autoethnography is one of the approaches that acknowledges and accommodates subjectivity, emotionality, and the researcher’s influence on research, rather than hiding from these matters or assuming they don’t exist” (Ellis et al. 273-74). In the context of (de)authoritatively approaching this project, autoethnography as a participant observer allowed me to reflect on my own authority—both leaning into it and deconstructing it at the same time. It allowed a constant questioning and curiosity about myself and about the project and it allowed me to model and learn through failures and successes. It allowed more flexibility in our engagement with secondary source material and a less linear research and writing path as we composed the Wikipedia page. It allowed for play and discovery.

It also allowed me to open myself up to learning from the girls, not as research subjects, but as subject experts as they taught me about what research means to them, and what they wanted to contribute to the page. I could have not predicted or hypothesized where the project would take us. Such openness is central to these kinds of methods as it is to the critically curious research disposition I espouse in my dissertation project as a whole.

4.3.2 Program Overview

At the end of the program, the co-facilitators and girls reverse outlined the journey we took from beginning to end together, and it is that chronological structure I use to organize my thoughts here. This narrative assessment method helped the participants, along with me as a facilitator, to reflect on not only what we did, but how it made us feel—or the affective dimensionality of the work for the group and for us as individuals. It also helped us compile final documentation for the Year of Data and Society grant report. This affect tracing helped us thematize what we were feeling and why and contextualize different moments in the project so that we could understand it as a whole. What follows are the steps that the participants indicated were important points during the project. While much planning did go into each session, the journey from beginning to end, and even through each session, often took twists and turns I did not expect, and this reflection helped make these diverging moments clearer for me in hindsight. The trajectory through these steps was as much created by the girls and their interests and constant negotiations between their energy levels and interest in interacting the material, as it was created by the learning objectives I outlined at the outset of our work. In addition to overviewing our program, I will highlight important pedagogical implications I made in my own reflective work and journaling throughout the process. This reflective work also took place in emails and meetings with Dr. Khirsten Scott as well as Dr.

Jaime Booth—the co-leaders of HYPE Media. Further, I will underline how the plan deviated or followed what I expected, and I will begin the work to trace important takeaway messages I find to be meaningful regarding information justice, critical Wikipedia studies, and community-engaged writing.

4.3.2.1 Preplanning and Spatial Considerations

After receiving grant funding in October 2021, we started planning the project outcomes and curricular design of the sessions. While this planning ended up being integral to my personal preparation to answer questions and facilitate the work, the documents I created at that time are in a “deprecated” folder as we did not use my linear, competency-based approach for our actual sessions. They were too rigid and did not take into account the girls’ needs and interests. I initially foresaw a program where we would facilitate entire sessions on “sandboxing,” or “critical Wikipedia literacy.” Instead, sessions tended to morph critical literacy skills with technical practice, and play. Moving from an instructor model to a facilitator model was also part of my training during this time. Acting as my mentor, Dr. Scott helped me re-think my approach from someone who had to have all the knowledge coming into the space, to someone who should be prepared with contextual ability and competence but who was willing to center the girls and their interests in every session. In other words, my authority had to shift to a community-based shared model. This included everything from session content and cadence to body language as I created space for the girls to take leadership roles and direct their own work. An example of this is when I chose to sit vs. stand. For the first few sessions I stood up when it was my turn to introduce a topic. This quieted the girls down a lot but did not give space for much participation Dr. Scott suggested I sit and roll around on the chairs as I was working with individual participants. This

made the space feel more communal, and made me less of an authority figure, and more of a collaborative figure.

In terms of sessions, Dr. Booth and Dr. Scott would start each HYPE session before I arrived—checking in with each of the girls, eating snacks, and talking about their days. They also had longer HYPE social media and activist projects going on and they would continue work on these things alongside the Wikipedia project. The Wikipedia project was introduced as a special project that would only last a few weeks, while the wider work of HYPE Media was ongoing. This time at the beginning of the sessions with Dr Booth and Dr, Scott gave the girls some time to decompress before I arrived. In general, I would facilitate 45 minutes or so of each session before the girls broke to go home. Dr. Booth and Dr. Scott could help with smaller group work but took a back seat as the majority 45 minutes was turned over to me to be the lead facilitator. My section of these sessions would consist of a word of the day (a word related to what we were learning like edit, encyclopedia, or representation) play time, work time, and reflection time.

Meetings took place in Pitt's Homewood Community Engagement Center (CEC). We had access to a meeting space, a small conference room, and a computer lab space. The CEC could not be more different from Westinghouse High School—sleek and new, the CEC felt like an extension of the university—even when you could hear the beats from the African dance class from upstairs from time to time which always lifted the mood. It was important that I, who had never been to Westinghouse, understand the physical presence of that space as well. To facilitate this, and to keep in conversations with Westinghouse leadership, Dr. Scott arranged for a meeting for her, Dr. Booth, and myself to talk to the school's principal about the work HYPE would be doing that semester. Walking into the CEC for each session required a swipe in, or a guest sign in at an entry-way computer. Walking into Westinghouse High School for our meeting, on the other hand,

required going through a metal detector and a bag search. We met with the school’s principal, Mr. Sereda, in a windowless cinderblock room near his office. His demeanor was pleasant but guarded. Westinghouse High School was built in 1917, lacks air conditioning, and has the old feel of an historical landmark along with the current realities of a closed-campus high school. It almost feels as if going into Westinghouse you’ll never leave, that it was built to keep people in. The CEC, opened a century after Westinghouse in 2018, bore a different weight of a different institutional history—one that felt not as clamped down, but instead exclusionary, and almost out of place across from the urban street art and bright murals of Homewood. For each of our sessions the girls made their way from Westinghouse High School to the CEC and juggled the various contradictions each space presented them. While Westinghouse seemed (and was described to me by the girls) like a prison, the CEC seemed almost untouchable—shiny and squeaky clean. Watching the girls inhabit the space of the CEC on my first day was extremely satisfying because as they spread out, snacked, chatted, caught up with their friends, colored, drew, played, and laughed, I realized that they did not wait for the space to welcome them; they made it theirs. And together we made Wikipedia theirs as well.

4.3.2.2 Introduction to Wikipedia

During our final reflection, Dr. Scott asked the girls how “comfortable” I appeared on my first day at HYPE. On a scale of one to ten they said I was “about a three.” Most of my apprehension came because I did not consider myself a Wikipedia expert. I was nervous wondering if I had the knowledge needed to successfully problem-solve, in real time, the problems I knew would arise. This worry came from the wrong pedagogical paradigm, though, and a focus on what I perceived to be my own deficits. Throughout the project I learned that co-creating a program also

means co-learning and co-problem solving together. Co-creation starts with building community and getting to know and trust one another.

One of the ways we got to know each other was by letting the girls ask questions about me and about the project rather than having me explain and overview exactly what would be happening like a lecture. During this time, I found out that one of the participants wants to study to be an attorney one day. She asked if I knew any lawyers and I said yes, one of my best friends is a patent attorney. Another girl asked what kinds of things needed patents. We talked about products and inventions. Another girl interested in cosmetology asked if magnetic eyelashes were patented. While I didn't know, I said I'd ask. In this sense I was showing that I did not, could not have all the answers, but I knew methods by which to find them. Focusing on natural curiosity allowed us to open up spaces to talk about the Wikipedia project and is an example of the critical curiosity I discussed in chapter two. Critical curiosity follows leads that are of interest to the individual, pushes the edges of one's knowing, asks iterative questions, and admits to being wrong or ignorant. But the important thing is that it does not stop there: curiosity encourages critical use of discovery platforms to answer questions, while questioning those answers at the same time.

Using the girls' interest in magnetic eyelashes I researched in between sessions and used it as an ice breaker to begin our next session. I did a little research online myself, but I also realized that my best asset in answering the question was another person in my life, my patent attorney friend. Between sessions I asked my friend about eyelash patents, and she emailed me a few examples and gave some suggestions for the girls if they ever had a unique idea or design that they would like to have patented. Together as a HYPE group we looked at the patents and looked at the Wikipedia page about false eyelashes to open discussions about what an encyclopedia is, what kind of information is found therein, and how information is verified on such platforms. In other

words, we showed that there are various ways of gathering and disseminating information. Indeed, not all information is, or needs to be found, online. Some of our best information assets are those around us, even if we cannot cite our friends (or ourselves) on Wikipedia.

4.3.2.3 Games and Social Media

The girls admitted that in the beginning they were bored and a bit uninterested in the project. During drafting and researching they said they were frustrated and stressed. However, the part they fondly reflected on was when we played games and used social media platforms to understand Wikipedia better. For example, one day we learned facts about how pervasive Wikipedia usage is, and how underrepresented women of color are in editing circles. Armed with this knowledge, the girls broke into teams to create TikToks relaying this information to social media audiences. We also created Instagram posts about Wikipedia as a way of sharing what we learned. Having the girls take the lead on social media—especially TikTok creation—was an important intersection with contemporary conversations about Black girls, play, and their online activities. Indeed, TikTok has been a place of “collective Black girl pleasure” where girls create their own narratives about their lives and identities focusing on joy and play (W. Martinez 40). As trendsetters on the platform, Black girls interviewed about the platform describe TikTok as a place they can be creative and even practice self-care by dancing, singing, etc. (ibid 45). Our HYPE engagement with TikTok positioned the participants as authorities in the space—it was a space they felt familiar with, even safe exploring. While they learned and relayed content about Wikipedia, they navigated TikTok trends as experts and fit new content they learned into existing knowledge structures.

Most entertaining was our Wikipedia 30 second challenges where we imitated a TikTok trend to navigate between two unrelated Wikipedia pages in thirty seconds or fewer. I found examples of this challenge on TikTok before one of our sessions and thought the girls might enjoy trying it out. For example, we started on rapper “Megan Thee Stallion’s” page and had to use only hyperlinks to find the “Hot Dog” page. Girls took turns in front of the room trying to navigate between two unrelated pages just by clicking hyperlinks. Girls watched or played along to see how fast they could navigate. Some were playful, others serious, but together we were able to brainstorm in real time what information might be linked, and where on the page. Games and social media engagements like these made our project seem less like “school” to the participants. But they also taught important lessons. The 30 second challenge taught us how information is linked and networked—how information ontologies work and how webs of information are created and built upon. We also later reflected on this game when we talked about how to add hyperlinks in articles. The TikToks centered the girls’ understanding of trends and information sharing techniques that I was not as familiar with. In this sense they were able to take information they were learning and solidify the knowledge by sharing it in their own way through their own means. In addition to being authorities, they took full agency in the space since I could not help them navigate it. Instead, they helped me understand the trends and why they chose to style their videos the way they did. As Gaunt suggests, “now, play is online” and is broadcast (148). HYPE Media’s larger mission is to harness the multimodalities of online spaces and rhetorically respond to them through play, activism, and counterstory. Our playful interaction with Wikipedia content via social media dissemination is one example of how such work can take place.

4.3.2.4 Practice with Templates

In an effort to get us to think about the anatomy of a Wikipedia article—the variations within different kinds of articles like articles about famous people, historical events, or places—we printed out blank Wikipedia templates and the girls practiced writing in an objective tone about issues they cared about. They then compared these drafts to the ones they found on Wikipedia about the same subjects. One girl, for example, wrote about legendary PBS painter Bob Ross. She started with the knowledge she knew about him and then researched more to craft her page. In reflections, the girls told me that this is when they realized how much work is folded into each sentence on Wikipedia, and how hard it is to distinguish between general knowledge and assertions that need to be verified. The activity also helped them realize what a valuable resource Wikipedia can be if well-researched. They also reflected that they would be more likely to look at citations from now on and would know how to verify if an article was reliable or not based on the number and quality of citations. This challenged their pre-conceived notions about Wikipedia as a place full of misinformation and disinformation. Indeed, they started to understand how the information creation process takes place on the platform and re-thought their initial understandings of the space.

By learning experientially—starting the work and then addressing issues as they arose—the girls’ questions were treated organically and in the time that made sense for them. For example, one of the girls wanted to write about fictional anime character Chiaki Nanami. She wanted to add in her article that she was Chiaki’s biggest fan, or in her words “favorite slave.” In this context, and borrowing from BDSM parlance, the meaning of “favorite slave” signifies that her fandom, even obsession, for Chiaki makes her willingly submissive to the character. We had to pause to talk about what would be objectively true vs. situationally true, what could and could not be

corroborated and therefore what could or could not be included in a Wikipedia article. While she truly believed she was Chiaki's "favorite slave," the question remained: would the Wikipedia audience agree?

The nuances in these discussions were always growth-inducing as the girls did not accept easy answers from me. They pushed back and asked if anything could, in fact, be objective. This allowed us to talk about charged language, and the use of rhetoric even in "objective" or "unbiased" sources like Wikipedia. Bringing this back to the information justice lens I introduced at the beginning of this chapter, they came to realize that such assertions for complete impartiality are, themselves, imbued with power. While impartiality may be a goal—it is unattainable in a platform that is infused with social implications and written by imperfect people who are themselves inscribed within social systems.

To illustrate this point, during one of our sessions we opened the Wikipedia article entitled "Blackout Tuesday." The first few sentences of the article give a good example of how the politics of objectivity, language, and race can play out: "Blackout Tuesday was a collective action to protest perceived racism and police brutality. The action, originally organized within the music industry in response to the murder of George Floyd and murder of Ahmaud Arbery, and the killing of Breonna Taylor, took place on June 2, 2020" ("Blackout Tuesday;" see Figure 6). Immediately the girls noticed that Floyd and Arbery were associated with the word "murder" and Taylor was associated with the word "killing." We talked about the effect of these different words, their legal definitions, and how thinking about the events using these terms might send different messages to readers. Given the way the cases were prosecuted, such language may make sense, but it does not mean it is impartial or devoid of deeply influencing how messages are sent and received. As it turns out, and as we discussed throughout these sessions, racial issues on Wikipedia are always

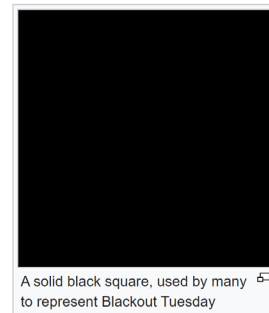
linguistically charged, even in the platform’s claims to objectivity. This creates even more of a need for a diverse body of editors creating a diverse body of content. It also begs a diverse and critical body of consumers.

Blackout Tuesday

From Wikipedia, the free encyclopedia

Blackout Tuesday was a collective action to protest perceived [racism](#) and [police brutality](#).^{[1][2]} The action, originally organized within the [music industry](#) in response to the [murder of George Floyd](#) and [murder of Ahmaud Arbery](#), and the [killing of Breonna Taylor](#),^[3] took place on June 2, 2020. Businesses taking part were encouraged to abstain from releasing music and other business operations.^[4] Some outlets produced blacked out, silent, or minimal programming for [8 minutes and 46 seconds](#), the originally reported length of time that police officer [Derek Chauvin](#) compressed Floyd's neck.

Contents [hide]
1 Background
2 Actions promoted
3 Concerns and criticisms
4 References
5 External links



[Background](#) [edit | edit source]

Figure 6: Blackout Tuesday Wikipedia Entry Captured 20 August, 2022

4.3.2.5 Looked at Different High School Pages for Inspiration

This blending of analog/digital, critical/practical, technical/play continued throughout our engagement with the project. After composing our own articles, we looked at the anatomy of different high school pages on Wikipedia to try to establish a “genre” of this kind of article. For example, we looked at what kinds of subheadings existed on different high school pages, and then we brainstormed what they thought was unique about Westinghouse and what they felt comfortable contributing. In Figure 7 you can see a picture of our brainstorming. Girls hopped from computer searches for high school pages to large sticky notes around the lab where they recorded ideas for the page. We used these ideas to later outline and draft our article together.

There is an interesting note in the “Talk” page of the Westinghouse Wikipedia article we spent some time discussing as we outlined our page. This is where authors can discuss the content

of the piece. After the Westinghouse page was created in 2006, a user asked about the school's notability and inclusion on Wikipedia. This was early in the days of the platform, and what counted as appropriate for inclusion was still being solidified. Issues of notability and inclusion even in 2022, at the time I am writing this chapter, continue to be tricky given who decides what is notable and what is not, and the girls caught onto this nuance during our discussions. In 2006 Wikipedia editor SuperDT writes, "I'm curious: how is this school notable, other than the fact that it's in the Pittsburgh area? If nobody can provide that info on the article, then this page may be up for AfD [Articles for Deletion]." What makes the school notable? I asked the girls. And how do you define notability? Are there things you would find notable that other communities might not? And what does that suggest about how society values different people, institutions, and events? While the girls did not harbor positive feelings about Westinghouse, they were perturbed to note that their rival high school in a whiter neighborhood of Pittsburgh had no such questioning of "notability" in its talk history. This is another example of how we both engaged in Wikipedia's platform and guidelines while simultaneously questioning the power dynamics of those same guidelines using a social justice and critical literacies lens.

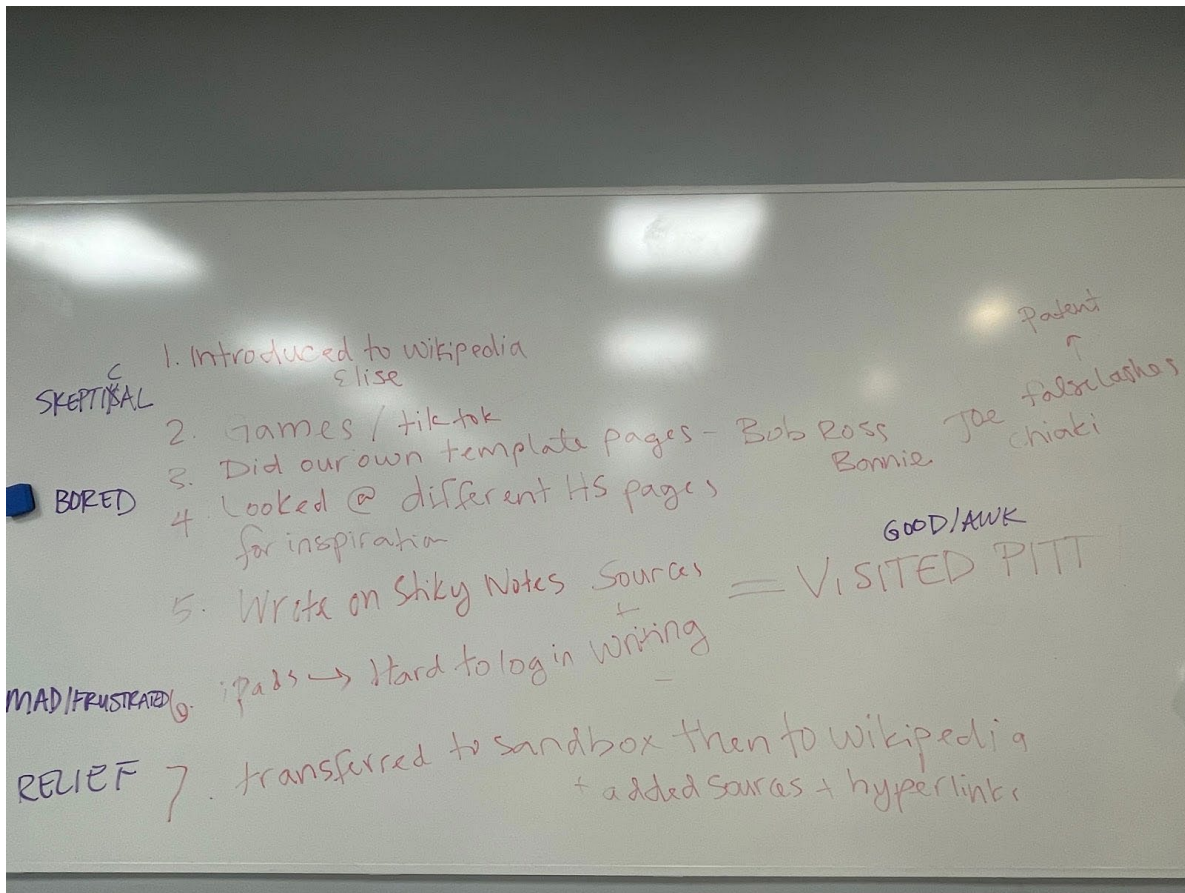


Figure 7: Affect Tracing

4.3.2.6 Analog Drafting

After outlining our article with the girls specifically wanting to add sections on “Sports” and “Courses and Training Programs” and having a few ideas on what to add to the introduction to make it more robust, we moved away from the computers. The girls mentioned they felt burnt out and overwhelmed by sitting in front of computers at school and then returning to them for their out-of-school time. While drafting we responded to this need by using large sticky notes, Sharpie pens, and white boards for our drafting needs. The girls primarily used their phones and iPads to look up information. The benefit of moving away from the computers was also that it taught an important lesson in plagiarism which is that by closing secondary source material from which you

are pulling information, it is easier to put things into your own words and avoid copying verbatim. While we discussed originality with the girls, it was important to focus on the material means by which to avoid it, even embodied habits which they could use to focus on their own voices and word choice. This still left the large issue of balancing the girls' experiential knowledge of the school and its programs with the verifiability needed to include that content on Wikipedia. According to Wikipedia "verifiability means other people using the encyclopedia can check that the information comes from a reliable source. Wikipedia does not publish original research. Its content is determined by previously published information rather than the beliefs or experiences of editors. Even if you are sure something is true, it must be verifiable before you can add it" ("Verifiability"). The tricky part is that there are power dynamics involved in what "previously published" information exists. If information presence in the form of media coverage is a privilege, then it follows that it may be harder to verify information about subjects that are less reported on or published about, leading to a self-replicating absence of information about marginalized subjects considered "notable" according to the verifiability definition.

The politics of verifiability were not lost on the girls. They found themselves frustrated with the media coverage and available information that had been previously published about Westinghouse. The constraints of sourcing changed the way they approached the project as well. They recognized intrinsically that there are many ways to verify something, including talking to people with first-hand experience. Wikipedia's narrow lens of verifiability made them even more aware of how important creating information is so that it can be added to and widely distributed. I found myself worried about them omitting sources or otherwise creating content that did not follow Wikipedia's core content guidelines. In response to this, I appreciated Dr. Scott's advice to me. She advised me to let the girls make mistakes along the way, let the Wikipedia community take

care of any errors, change, delete, or add things that the girls might miss. She asked me, in other words, to enact my theory of failure articulated in Chapter 2. In many ways, experience is the best teacher, and seeing their work revised in real time might drive home concepts that could only be taught in theory otherwise. It would also create opportunities to discuss what was changed from a critical lens if need be. In other words, it would give us opportunities to talk more about the power of deletion, and the presence of absence.

4.3.2.7 Transferred to Online Sandbox

At the heart of this project were the HYPE Media participants and their needs. During the time we started transferring our analog materials onto an online Sandbox, or drafting space in Wikipedia, two major events happened which changed the tenor of the project. The first was the shooting of a fifteen-year-old boy, Dayvon Vickers, who was a student at Westinghouse High School, and who was close to a few of the girls participating in HYPE (Bortz). This experience understandably shook the HYPE Media team and led Dr. Scott to cancel meetings, re-arrange content, and create space for the girls and their grief. Some of the girls organized and participated in a protest against gun violence during this time.¹⁴ They used HYPE sessions to engage in various campaigns to get Pittsburgh Public School officials to cancel or delay the start of classes on the day of Dayvon's funeral. HYPE Media sessions were used as organizational spaces, grief processing, and activist hubs. In a particularly poignant moment during this time I Googled "Homewood" to read news coverage about the tragedy. Google organized its top stories on the top

¹⁴ I encourage readers to consult coverage of the Youth Protest Against Violence many of the HYPE participants helped to organize. See James; Kirkland; Yorgey "Youth Hold Anti-violence" for more information and videos of their work.

left of the page—all having to do with Dayvon, and along the right side the “Homewood North” Wikipedia entry text and map (see Figure 8). Seeing the news of the murder visually paired with the neighborhood’s Wikipedia entry viscerally and visually showcased for me the ways in which community-engaged work always happens in tandem with the messy realities of each participant’s life. Wikipedia was both on the Google page, and also in our community-engaged project, tangential to the real focus, the real work of community building. It remained in the background, though still present, while the participants grief took the forefront of our conversations and our energy.¹⁵

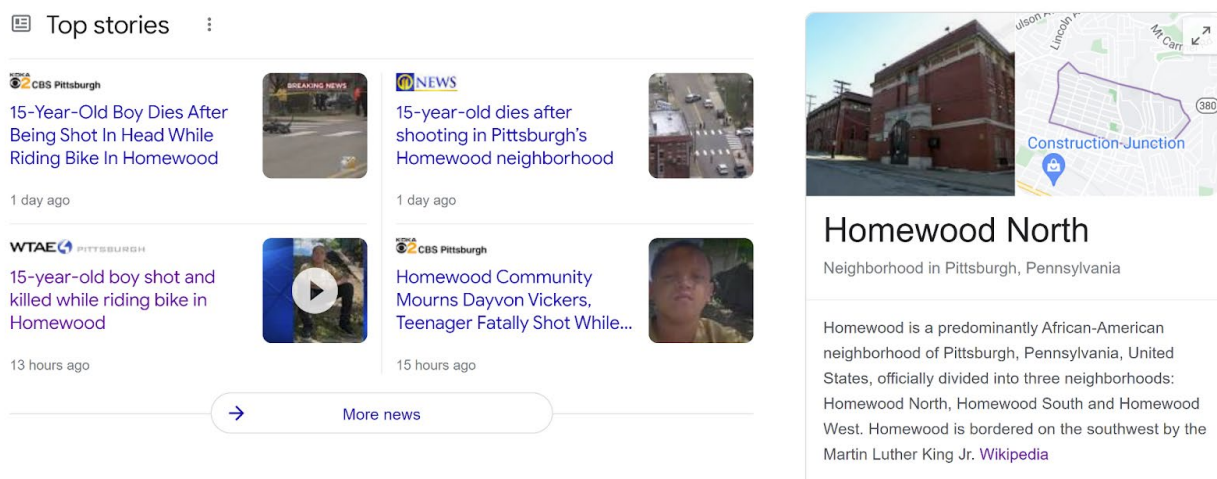


Figure 8: Google Search Results, Dayvon Vickers Murder, Captured 1 April, 2022

15 I cannot overstate the effect this event had on the girls and on the program and our project; indeed, it had a profound effect on me, but my trauma was secondary to theirs. After reflection, I have come to realize that the girls are the ones who own the narrative of Dayvon’s death and how it affected them. In other words, my superficial treatment of this event is a thoughtful but meaningful absence from this chapter. Any significant writing about Dayvon and how it impacted the program needs to be done collaboratively along with the girls and their reflections. I do not wish to filter that experience for them through my lens. It would not be fair, nor would it be authentic. For information regarding Dayvon’s death please consult Yorgey “15-year-old-boy,” Bortz, and R. Taylor.

The second event during this time was Pitt's Year of Data and Society Celebration that we were invited to participate in. The girls created a poster that outlined the work they had done so far on the Wikipedia project and took a field trip day to Pitt's campus to present their work with Dr. Scott. At the end of the project, they reflected that this was one of the most meaningful things they did during the project. At the poster session the girls engaged with other scholars who did work related to data, information, and its social implications. The girls reflected specifically about the exuberance of one scholar who also studies Wikipedia. They felt pride in the fact that they could talk knowledgably about their project with various people. This event helped them see how their contributions impacted not only the Wikipedia page, but wider scholarly and knowledge networks. They were given a place to feel pride in what they did, answer questions about how they did it, and see that other people were interested in the project.

Given the extra stress during this time I started to transfer the analog work the girls had written out by hand into the online Sandbox. Using the girls' language, I crafted a draft of what eventually would be used as a basis for the final page. Dr. Booth told me at the beginning of the project that it was important to carefully balance failure and successes in that failures could teach the girls important lessons, but also affect morale. In other words, she suggested a scaffolded approach to facilitation which gave space for the girls to learn and grow, but also supported their momentum forward and provided a cushion upon which to fall if they struggled with any part of the project. For this reason, I took over the task of transferring the handwritten material into a sandbox online. This kept the project moving forward and used my position as a facilitator to create a new jumping off point given the painful reality of Dayvon's death, and the pause related to the Pitt poster presentation.

4.3.2.8 Added Sources, Connected Hyperlinks, Went Live

Our last step was to work in teams to finish the page. Once the content was uploaded into a sandbox, the girls worked in teams to transfer the words onto the Wikipedia page proper, add sources, connect hyperlinks, and publish. Working on teams helped with the proofing and editing and gave the girls a communal approach to the project. During this session the girls described the frustration of having to re-do work that they lost or did not save, but also the relief that Wikipedia saves all versions of work so if there was an issue they could go back and restore it. Because we were working on the page at the same time, we had to coordinate with other groups so that our work was not re-written or changed in real time by another well-meaning team. Working in short bursts gave everyone in the room a chance to change text on the page and save it. What was slow and cumbersome at the beginning—finding and linking sources—became quick and habitual by the end.

The girls reflected that their frustration over some of the technical aspects of the project changed into relief as they saw the work materialize online. I demonstrated how to do some of the cutting, pasting, and sourcing with the “History” section at the beginning of the session, but the girls mainly learned through trial and error throughout the rest of the day. Now, when you look at the page history you can see the girls’ Wikipedia handles associated with the parts they contributed, namely the “Sports” and “Courses and Training Programs” sections. While Wikipedia can always be changed and updated, their work will forever be documented in the page’s history. Wikipedia usernames like Lovelyakaisha, Baby girl what’s your name, and Chiakisfavoriteslave dot the page’s history with their contributions which—even if they are eventually changed or edited one day—will always be there attesting to their labor, the page’s notability, and its importance in community narrative building.

4.4 Conclusion: Asset-Based Learning and Community-Based Knowledge

During our reflection session at the end of the project Dr. Scott asked the HYPE participants how “comfortable” I seemed at the end of the project, as opposed to my three out of ten rating at the beginning. The girls laughed and said I seemed like more of an eight out of ten by the end of the project. It did take me awhile to find my footing and feel like a contributor to the tightknit community the girls along with Dr. Booth and Dr. Scott had created. In other words, it took me awhile to go from a closed researcher to an open one—a linear one to a recursive one. Dr. Scott prompted me in an email to “think about moments that come to mind for you where you've felt invited into the community, where you had to negotiate community, where you've had to revise an approach in order to grow deeper in community.” Prompting me to think about my role in community involved me reflecting on how I facilitated sessions, how I embodied the space, and how I centered the girls and their needs in the work. Times when I felt invited in included when they asked me about my family, specifically my daughter. This prompted me to ask about their families, interests outside of school, and encouraged more meaningful discussion upon which we could build relationships. But there was also plenty of negotiation that happened along the way; for instance, in the first few sessions they tended to be very quiet when I talked, but once I started to sit down and roll around on the chair rather than stand up, they began to talk more. This was not the only approach I had to revise to grow deeper within the community. As time went on, I had to work hard to pivot given changing time needs, technological constraints, or even energy levels in the room. Instead of arriving with a linear shape to the facilitation plan like I was during the beginning of the project, by the end I would arrive with a few outcomes and potential ways of engaging with the girls that could be revised as we needed to pivot through the day. If anything didn't work, or seemed out of balance, Dr. Scott would hold me accountable, and we would talk

through how to approach next steps. While this relinquished my control over the sessions, it did so in a way that was communally based, and group driven. Considering community so thoroughly also prompted me to consider the important group information practices I witnessed throughout the project.

In addition to the personal changes I underwent through the project in terms of my pedagogy and facilitation approaches, my thinking surrounding research practices also changed. My thinking changed after observing community-based research practices that were nothing like the bibliographic instruction I have so much experience with teaching in libraries. Research during the Wikipedia project was more based in lived experience as a starting point and creating information together. Perhaps this should not have surprised me as much as it did. We know, after all, that people prefer to get information from other people. Historically people have turned to humans to answer questions vs nonhuman information sources like books or magazines. The information age adds networked information sharing as a dynamic to this. For needs large and small “users often connect to ... other people via networked means, such as posting a question to social media or texting a friend for advice.” (Augusto 4-5). This is especially true for high school students who it has been found “frequently [turn] to social media to ask their peers questions related to school, such as scheduling and homework questions. Typically within minutes they would receive answers to their questions, as large numbers of their classmates were also online in the same environments” (ibid). I suppose, then, that it should not have come as a surprise to me to watch the way the group gathered information to edit the Wikipedia page. On the day we were analog drafting I recorded the following in my reflection notes:

Today I watched as the girls started from what they knew
and built out in a networked information finding fashion. This very

much contrasted with anything I was doing (I had been editing the history page by myself over the last few days to hone my skills). I had to work completely off secondary sources, but the girls were calling friends, sending texts, and trying to figure out what the requirements for each CTE¹⁶ course was. Once they had that information, they were able to find more secondary sources online. There was a moment when [redacted name] found a list of football players from Westinghouse that went pro-league after having attended the school. There were letters by each name like T or QB and [Dr. Scott] called her husband so one of the girls could figure out what those letters were for (tackle, quarterback, etc.).

I can't stop thinking about this. In my phone I wrote down some ways to describe this behavior: community-based research practice, communal knowledge collection, networked information gathering, or socially informed information finding. I'm not sure exactly what to call it other than a bunch of teenagers who have a question or a problem to solve and turn to their friend network. They also gravitated towards the parts of the Wikipedia page they knew the most about--like CTE (courses they were taking) or sports (something they knew had a strong history at Westinghouse) rather than the history section (something I thought they'd be interested in)

16 Career and Technical Education (CTE)

or the wall of fame (something [Dr. Scott] thought they'd want to pursue).

While I think we'll build out these other sections, I'm really interested in how this project has shown me different research techniques rather than the ones I generally teach/see in a university classroom involving Google, library resources, etc.

During the entire project Dr. Scott encouraged me to put myself in the participants' shoes and try to start with the knowledge and skills they already had. This asset-based, experiential model is key to community engaged work. Assuming the girls had authority and expertise not only gave them confidence, but it taught me how little I knew about community-based research behaviors. While I had different knowledge and skillsets than the girls, I did not know about Westinghouse (in the same way that most visiting the page would not know) and needed the girls to lead the drafting of the page given their interests, experience, and authority. This episode showed me that youth are already researchers. They recognize an information need, come up with ways to fill that need, and pull in their rich information sources in the form of their communities to answer their questions.

Earlier in this chapter I alluded to the lack of information online about Westinghouse. What this experience also showed me is that, while it is important to take notice of information absences and lack of representation online spaces, we must not look over the richness of information sources that are vibrantly contributing to communities. Undervaluing those resources overlooks the ways they influence information behavior and community building. One way I was conceiving this lack of information was akin to a food desert (a geographic place where there is a lack of fresh food). Information deserts might be subjects about which not much has been written or researched. Information deserts denote imbalanced distributions of information that exist on information

discovery platforms—the web being one of those platforms. By shifting my perspective from a deficiency-based approach to an asset based one I both was able to see the information that was missing, but did not overlook, in that assessment, the information that was waiting to be found. In this case, we had to pursue non-traditional means to start the research process and follow a human-based approach to information gathering and research writing. This did not cut out the need for verifiable secondary sources, but it gave the girls a firm foothold of where to start that was familiar to them.

This approach drew on the rich information environment in the form of wider community connections of which the girls formed an integral part. (De)authoritative research methods like this are at the heart of community-engaged writing spaces where flexibility and group dynamics are key to the success of the project. In some ways, a group-based dynamic responds to what Alexandria Lockett describes as an intense vulnerability in knowledge-production by encouraging peer work to help share the load—and in so doing recognizing that there are multiple ways of knowing and multiple ways of creating information. Lockett writes, “to willingly publicly expose the reality of the limits|sum of one’s own knowledge also comes with a considerable psychological burden within the sociopolitical context of a patriarchal adversarial culture that incentivizes proclamations of certainty over truth” (np). Information activism and critical research writing practices uncover the power dynamics inherent in knowledge-making, information, creation, and the circulation of “truth.” It can uncover who is writing and why, who isn’t writing and why, what information is available and why, and what information isn’t available and why. What programs like these do is uncover, question, understand, and disrupt information creation patterns upon which knowledge is built. Doing so thoughtfully, with an awareness of how online information platforms function, and how research writing is rhetorically based creates empowered researchers

and strong community members who disrupt and re-write destructive narratives and replace them with their own.

5.0 Chapter 4: I'm Not a Big Fox News Girl: Curiosity vs. Objectivity in First-Year Research Writing

Thus far my dissertation has been a study in research methods, both primary and secondary. The last chapter used auto-ethnography and reflection to overview community-engaged work built on the tenets of information justice. That method showcased one way of experientially coming to know by building/considering embodied authority. In previous chapters I have theoretically overviewed the complicated collapsing of authority markers online and the difficulty not only in finding them, but understanding how they function within wider institutionalized histories and constructions of expertise and power. I also have suggested pedagogical interventions that might bolster understandings of authority and critical curiosity as a disposition with which to approach source finding and usage—suggestions I return to in this chapter. I end this dissertation with the words and experiences of first-year students as they navigate these fast-changing information environments, searching for, and using, information objects for college research papers. The questions that undergird this dissertation began with first-year writers. It seems fitting to end the dissertation talking to these students in ways that provide depth and breadth to my understanding of their research dispositions and approaches. It is worth mentioning in this preamble that this chapter will *feel* different than its predecessors. I have questioned Western empiricist notions of authority and method in previous chapters. Here, however, I enact the language and methods of social science—a qualitative approach of collecting and analyzing unstructured data. In the balancing of authorities which I espouse in this dissertation, this chapter and study is a practice in critically curiously taking up different research methods to answer different questions—with caution and a willingness to learn about myself as a researcher just as much as it is a practice in

learning about my subjects. Compositionists have long straddled the line between humanistic ways of thinking and social science approaches to studying human behavior. I have attempted to model multiple ways of knowing and coming to know in this dissertation. Qualitative analysis is merely one of them. As I conclude this dissertation I end with where I started—a mixed methods study of first-year writers—but with more nuance and self-awareness than I had before I started this PhD program.

In Chapter 2 I situated the idea of critical curiosity within a K-12 educational culture which sometimes encourages black and white thinking over developing nuanced engagement with information evaluation and research processes. While both the Council for Writing Program Administrators *Framework for Success in Postsecondary Writing* and the Association of College and Research Libraries' *Framework for Information Literacy in Higher Education* use words like curiosity, openness, creativity, flexibility and focus on habits of mind for writers, many students are entering into university writing settings with a different kind of socialization—one that is influenced by assessment culture and the ubiquitous five paragraph essay. In describing dispositions influenced by assessment culture vs. more open learning approaches, Elizabeth Wardle distinguishes “problem-exploring” dispositions from “answer-getting” ones. Wardle critiques educational institutions for creating learners who seek “quick and formulaic answers” rather than the longer, more iterative work of problem-solving and exploration (“problem-exploring vs. answer-getting”). My work recognizes this problem and seeks to understand how students might be willing to open up, explore, and get curious about research and writing.

How do instructors encourage such “problem-exploring” dispositions? Part of the answer lies in focusing on writing processes and how student identities are forming as researchers. James Purdy, for instance, suggests one way to respond to this assessment landscape is by attending “to

how students *think* and *be* in the world rather than only or primarily what they *produce*” (“Common Dispositions and Habits of Mind” 61, my emphasis). Understanding student research dispositions and how they are formed becomes very important for compositionists who want to influence student attitudes in ways that may positively affect their writing processes. This study overviewed in this chapter seeks to further these understandings, focusing specifically on dispositions of student research writers. While the way student dispositions manifest is partially influenced by intrinsic motivation, it is also heavily influenced by the contexts in which they write, giving instructors a great deal of power in how students approach their assignments. Indeed, Hardy, Kordonowy, and Liss—a team of compositionists and a librarian—studied student research attitudes and found that the way assignments were worded heavily influenced the students’ dispositions during the writing process. Through pre-testing and post-testing, they found that “student dispositions fluctuate and change in response to context” revealing a “strong relationship between the proportion of problem-solving language in instructors’ assignment sheets and the proportion of problem-exploring language in students’ reflections at the end of the term” (“Introduction”).

In responding to the need for more research regarding student dispositions as research writers, research that can inform instructor approaches to teaching research writing, this chapter overviews a mixed-methods beta-study I conducted in a first-year composition class at the University of Pittsburgh in fall 2022. I partnered with an instructor teaching first-year writing and acted as an outside observer of her class during the days she taught research methods. The study’s objective was to better understand how students find and evaluate source material for their research writing projects, and how curiosity plays a part in their approach to research writing. As an outside observer, I wanted to know specifically how students discern if a source is or isn’t authoritative

and what encourages or discourages curiosity as a research writing disposition. In addition to class observations, I interviewed the instructor and several students from the class as part of my data-collection process.

The assignment students worked with during the course of my study was written to encourage exploration and openness. The assignment asked students to compare two critical readings from Joy Castro and Jennine Capó Crucet they read early on in the semester. Both readings engaged the idea of “academia.” The assignment asked students to compare how these critical readings defined “academia” and reflect, with source evidence, how the definition of “academia” or “academic identity” has changed in the 21st century. The instructor gave students flexibility in their definitions and in the sources they used. Students were to include “a few sources” to back up their analysis and reflection on these questions (See Appendix A for assignment overview). During the course of the assignment, I interviewed students, their instructor, and observed several classes to get a sense of student curiosity and understanding of source authority. In my study I asked students questions like *how do you feel about research writing? What is an authoritative source to you? What makes you curious about research topics?* After students wrote their papers, I asked questions like *can you tell me about something you found in your research that surprised you? What was the hardest/most rewarding part of this research project?* In interviews with the instructor with whom I partnered for the study, I asked about her approach to teaching research writing, engaging curiosity, and source evaluation pedagogy. My methods section also gives a more robust overview of the structure of this study.

I have several meaningful themes I identified that can inform research writing pedagogy and direct paths for future studies. When I asked students what made them curious about research topics and what kinds of sources they used for their papers, I found a tension in their answers.

Students described wanting to write on topics that mattered to them, that affected their lives—topics that they had some claim in. They also described being busy and time constrained, affecting their ability to always engage with topics fully. They also described wanting to find objective sources for their research writing. In other words, students wanted to write on personal topics without their sources being personal, and without spending too much “extra” time on research assignments. While I do believe that there is plenty of empirical research (which is what students were trying to describe when they talked about “objective” or “fact based” source materials) that exists about topics students care about, the nuances and politics involved in choosing these kinds of sources seemed unclear to students. What was clear was their rhetorical savvy. They did not want to appear biased as researchers. This shows that the students are hearing and taking to heart discussions regarding misinformation and disinformation online. In an important rhetorical move, students represented themselves as competent researchers who avoided problematic, potentially “fake” source materials, giving anything that seemed opinion-based a wide berth. In many ways this mimics the young HYPE media participants who told me they “never” used Wikipedia because “anyone could write it.” This anxiety about using the “wrong” kind of source is deeply entrenched in how students talk about sources online, even if their behaviors might suggest that they consult these sources more often than they admit.

Given this rhetorical framing, students described shying away from sources that seemed subjective, sources that relied on experiential narratives to impart information or knowledge, despite working on an assignment that put two primary, critical, and narrative-based readings together in conversation. This is an interesting tension that showed a disconnect between what motivates student writers (personal connection, practicality) vs what they think their readers and graders want to see in final papers (objectivity, empiricism). I present and further analyze these

trends by sharing more literature regarding what we know about student research behaviors and attitudes, overviewing my methods, imparting my findings, and unpacking the tension between student curiosity, practicality, and “objective” source use. I end with pathways for future research. Ultimately, using an asset-based framework which centers what students are bringing to the table, I conclude that more nuanced discussions regarding source authority and the constructed nature of objectivity would be helpful for our time-strapped student researchers who are looking to use “unbiased” source materials in their compositions.

5.1 Literature Review: Source Evaluation Studies in Composition and Information Science

My current study corroborates and extends previous research done on source evaluation and research dispositions of university students, but also complicates that research. It corroborates what we already know regarding students’ time constraints and practicality: students want to be curious and interested in their topics but tend to shy away from such curiosity if they think it will cause them extra work or effort. It complicates discussions of bias, however. I found that the students I talked to were very aware and self-reflective about source bias. Their over-focus, even anxiety about it, seemed to hinder their ability to think broadly about what different kinds of authority sources bring to information contexts, and how they function within complex knowledge-creating environments.

So what do we already know about how young people interact with source material as they compose research papers? From the composition side, researchers study source-based writing in many ways, but most systematically via citation analysis, and very specifically in higher education contexts. Arguably the most recognizable names studying source-based writing in composition are

those associated with the Citation Project (CP): Rebecca Moore Howard, Tricia Serviss, Sandra Jamieson, and Tanya Rodrigue. The CP grew out of Rebecca Moore Howard's work on plagiarism in the 90s, and a graduate seminar at Syracuse on the same subject. The CP utilizes multi-institutional data to make claims about citation practices in college composition courses, specifically first-year composition. Utilizing grounded theory, members of this project coded 174 student research papers analyzing sources cited in works cited pages, and how those citations were incorporated in the text proper of the research paper. The CP's coding practices were informed by previous research done by librarians and compositionists including Grimes & Boening; Carlson; McClure & Clink. Previous research relied on single-institutional data (Jamieson 116). One of the major contributions to the field by the CP was building on prior coding practices and moving them to multi-institutional contexts. Aside from Howard's work to re-think approaches to plagiarizing—pivoting from framing plagiarism as a malicious act to symptom of student difficulty understanding and re-articulating source material (Howard)—the CP's findings encourage compositionists to think about source-finding not as a checklist or a set of skills-based competencies, but instead, as habits of mind informed by the Association of College & Research Libraries (ACRL) *Framework for Information Literacy* (Jamieson 134). My work in this chapter and study focuses on information finding more than it does on information use and citation analysis. In other words, I focus on topic formation and source finding in association with how students think and feel about those processes.

As such my work extends some of the most wide-reaching studies about student research behaviors from the information science standpoint which come from Project Information Literacy (PIL). PIL studies student researchers in the source selection and topic development stages of research writing. Specifically, PIL studies what information scientists call “information

behaviors:” user actions regarding information seeking, information retrieval, and the intended use of that information. PIL’s research works to understand how students “conceptualize and execute research activities for course work and ‘everyday life’ use, especially how [students] resolve issues of credibility, authority, relevance, and currency in the digital age” (“Project Information Literacy”). Primarily utilizing large-scale surveys and interviews, PIL studies how individuals interact with source material online. Using social science methods, the research team collects data and analyzes it statistically to observe broad trends in information behaviors of college students. PIL’s scope is the largest of its kind and includes data points from nearly 21,000 college students in the United States (“What is PIL?”). Major findings from PIL show that students are drawn to expediency when choosing source material, settling for sources they are familiar with, know how to find, and are relatively easy to find. Ultimately students use “efficiency and predictability in order to manage and control the vast amount of information that is available to them” (Head 472). PIL takes a very different approach compared to the one other big data study which preceded it from the Ethnographic Research in Illinois Academic Libraries (ERIAL) Project, which, as per its title, uses ethnographic methodologies to study student culture (Duke and Asher). This ethnographic study has become outdated in the decade since its publication, given the increase in digitization in the last ten years. As such, PIL’s continued research reports have been the major driving force shaping the field of information literacy for library scientists. In comparison to PIL, my research study is small. However, in addition to interviews with students, I add interviews with a professor, and class observations to give depth to my analysis. Further, many of PIL’s major papers were published between 2010 – 2016, leaving room for further studies which continue to trace student research methods in rapidly changing information environments.

Between the CP and PIL, librarians and composition researchers have much from which to build. The CP is more intimately engaged with the final, source-based writing product, while PIL is more interested in the process that proceeds the writing. My interest lies at the overlap: where a researcher's disposition toward information and writing meets their practice. Even with all the research that exists, questions still linger as to how students choose the sources they do, and how that translates into information finding and use. My current study seeks to focus in on the process of the information gathering and writing itself—how individuals are encouraged to be curious, or discouraged to be curious, and how they think about authority as an indicator of reliability in the sources they choose to work with.

I argue in Chapter 2 that we should strive for a critically curious research disposition and in this study ask questions about curiosity, research papers, and source finding specifically. So, what do we already know about this intersection between a writer's disposition and practice? Ultimately, many students' dispositions are heavily influenced by time constraints and practicality. Ease of use factors into how students go about finding information, which explains student affinity for Google searches and online sources (Johnson et al. 835, Purdy, "Why First-Year College Students"). Other studies have backed up the findings that those new to research are more interested in the ease and accessibility of a source; its surface features (like pictures or graphics); and its perceived "coolness" than other markers of reliability, including content (Sundar; Brand-Gruwel et al.; Harris; Sillence et al.). Connaway et al. explain that students are self-interested and have serious time constraints. They choose the easiest sources that are "good enough" for them to finish their research task ("If It is Too Inconvenient" 180). In brief, students settle. My own previous research corroborates that of other researchers who have studied the ways in which students are seduced by the presence of numeric data, embedded videos, and graphs. Students

repeatedly judged sources more credible if they had videos, good web design, or other data visualization features, even if those sources had serious flaws of credibility in other areas (Silva, Green, and Walker).

The struggle to evaluate information, once found, is real. There is a good reason for this struggle as education in online literacies is uneven across high school experiences, and accessing information online is an ever-changing experience for students and instructors alike, requiring fluid understandings of source credibility. According to Currie et al., students who are new to college are most likely to use superficial criteria and surface features such as ease of access and web design to evaluate how credible source material is. While more practiced researchers may showcase a disposition of mental flexibility, even creativity, when approaching information gathering, those newer to these processes do not yet have that experience. I found in previous research studies that less-practiced students do show some hesitancy with web design that is too flashy or overbearing, yet these same students are generally unable to point out what characteristics credible sources actually display (Silva, Green, and Walker).

These trends in student habits are not unique to students either. We all struggle with contemporary information ecosystems that rapidly change and morph. Researchers and instructors are scrambling to keep up with the instruction that will help individuals better navigate information landscapes with more proficiency and confidence. Yet even despite the growing mainstream awareness of misinformation and disinformation online, students still rely on their own assessments about information credibility rather than engage in corroboration efforts to assess credibility. Indeed, as dispositions go, “students tend to trust their own judgement when determining the credibility of sources they [find] on the internet” (Dubicki 676). In past research studies I found that students were significantly more likely to use previous experience or emotional

judgements to decide whether information was credible rather than by fact-checking or following hyperlinks to check sourced material in an online, secondary information object (Silva, Green, and Walker). Students seem unaware that this is how they behave; indeed, there is a discrepancy between what students say is important vs. how they perform source evaluation—a revealed preference, to use economics terminology. In other words, “the criteria students say they will use are not the same criteria they actually use” when evaluating information (Taylor and Dalal). While unsurprising, this phenomenon is also backed up by my research with first-year writing students. They believe they look at more “objective” markers of credibility (like author, date, and publication venue) much more than their own hunches, which, upon observation of their evaluation techniques, turns out not to be the case (Silva, Green, and Walker). Ultimately the issue for me here is not that students used hunches or their own intuition to pick sources, but instead, that they were unaware they were doing this—demonstrating a lack of self-awareness in information finding behaviors.

Student motivation is another important factor in what kind of information students seek in their research processes. Indeed, motivation is related to research attitude and disposition, both of which affect how deeply and thoroughly students evaluate sources (Connaway et al. “If It is Too Inconvenient”). Most students new to research have difficulty defining their information need and do not naturally evaluate texts. Instead, source evaluation is found to be a learned behavior that develops in conjunction with domain expertise (Münchow et al.). It is important to understand that a hinderance to engaging in more complex dispositions regarding research might be that today’s students are simply overwhelmed, which makes sense in the increasingly competitive environment of higher education, and the ever-growing network of information online. Students new to the university tend to have a difficult time with synthesis, like assessing and corroborating

information from various sources at once (Münchow et al.). Given the excess of information sources and limited student time, students fall back on less time-consuming behaviors of source evaluation, ones that include opinions or quick judgements rather than deeper corroborative techniques (Metzger). This might be considered a disposition of exhaustion or time constraint. It is a disposition that likely relates to the general public as well, as we are all awash with copious amounts of information and not enough time to evaluate it.

Quick judgements made in haste are also often plagued by confirmation bias. No one is free of biases, whether they are students or not. As van Strien et al. assert, “Prior attitudes can affect information processing in profound ways. For instance, people are almost two times more likely to select information that supports their prior attitudes” (246). Confirmation bias abounds because in today’s online information environment markers of credibility are sometimes hard to find—but politicized opinions and ideologies are more assuredly not. Some of the reliability markers students struggle with identifying are cited information, author information, and document type (Strømsø et al., 198). Many students believe “that pages returned by search engines usually contain accurate information” (Taylor & Dalal). The willingness to believe that Google algorithm will return accurate information and that individuals can judge, based on their own previous experiences, the accuracy of that information, is something that can be pedagogically addressed as it showcases a lack of awareness about both how information is disseminated, and underdeveloped critical understanding of how information is consumed. Indeed, as Safiya Noble argues in her work which critiques Google search engine results, “as the search arena is consolidated under the control of a handful of corporations, it is even more crucial to pay close attention to the types of processes that are shaping the information prioritized in search engines” (155). Without explicitly being taught about the commodification of information environments, students rely on themselves

and on Google to help them find the “truth” without realizing how that truth can be bought and sold.

The literature regarding student source evaluation behavior is expansive and yet still leaves much to understand as students are becoming more aware of conversations surrounding misinformation and disinformation. If my study is any indication, they are wary information consumers who want to find good source material. The information environments in which they are searching are just becoming harder to navigate.

5.2 Methods

The University of Pittsburgh Institutional Review Board determined this study (22060049 “The Role of Curiosity and Source Authority in The Research Writing Process”) exempt as it posed low risks to research participants. The study was a small-scale, beta-level study of one first-year composition class at the University of Pittsburgh in fall 2022. I worked with an experienced composition instructor in addition to five student research participants who I interviewed two times over the course of the semester. In addition, I conducted three in-class observations on days students were learning about research writing.

The study was confined to a single assignment (Appendix A). The assignment the students were working on during the observations and interviews incorporated assigned class readings in addition to outside research to answer a question about the changing nature of academia. Students put two critical class readings about education into conversation with one another and were expected to find outside research (popular and academic) to support their exploration of a narrowed

topic within the class theme. Students did not have a required number of sources to complete the assignment; however, in class the instructor encouraged students to find three to four outside sources in addition to the class readings that would help them develop their thoughts. The assignment asked for an “academic” or “scholarly” tone.

My mixed methods approach was informed by previous research in source evaluation studies and student research dispositions. As previously mentioned, major studies into student research behaviors include Project Information Literacy which used wide scale interviews, focus groups, and surveys to gather data about how students approach information. The Citation Project looked at final written artifacts, including of the works cited page, and analyzing how information is incorporated and cited in research writing compositions. My study included different datapoints like classroom observations and teacher interviews to build upon the larger scale research studies which were interview or product based. I focused on process and context to gather and assess my data.

5.2.1 Class Observations

To provide context, let me give an overview of the University of Pittsburgh’s first-year writing requirements and curriculum. All students at the University of Pittsburgh take Seminar in Composition (SC) to fulfill their first-year composition general education requirement unless they receive an exemption under the following conditions: scoring 660 or higher on the SAT Verbal Exam and a 5 on the Advanced Placement English Composition exam or receiving credit for an equivalent class at another institution. This happens rarely and most first-year students at the University of Pittsburgh take SC. Students are encouraged to complete SC in their first year of study. SC is a course in reading and writing that incorporates cultural studies into its curriculum.

Students who take seminar in composition 1) engage in composing as a creative, disciplined form of critical inquiry; 2) compose thoughtfully crafted essays that position their ideas among other views; 3) compose with precision, nuance, and awareness of formal conventions; 4) revise writing by rethinking assumptions, aims, and effects of prior drafts (“Seminar in Composition”). SC at Pitt incorporates critical thinking, critical readings, analysis, and sometimes even creative writing in ways that more argumentatively-inflected first-year writing classes at other students might. In this sense, the class does offer a framework for instructors to teach toward curiosity and criticality.

I observed three classes covering the following: introducing the assignment, discussing topic narrowing and development, and practicing source finding. At the beginning of the first observation the instructor introduced me, and my research project, and I passed around a signup sheet for interview participants. I quietly observed for the rest of the sessions. I took notes on my computer about what the instructor covered and how, and how students responded to the material. Further, I observed students doing in-class activities related to research and source finding. I did not move around the classroom to observe different students but stayed in one part of the classroom and mostly observed small groups around me as they worked. I did this to not disrupt normal classroom activities. These observations informed how I talked about research and research writing with students during interviews as I was able to reference class activities and also talk to them about the assignment they were specifically completing during the time of our interviews.

5.2.2 Interviews

As part of the study, I interviewed the instructor twice and five students twice over the course of the assignment, equaling 12 interviews in all. All interviews were done one-on-one individually, not as focus groups. I interviewed the instructor a few weeks before class

observations and after the instructor had finished grading the assignment. I interviewed students the week the paper was assigned in class and after it was due. Interviews were semi-structured with guiding questions that could be modified or followed up with more lines of inquiry if I felt necessary. All were voice recorded and then transcribed. Interviews did not exceed one hour each and most of them were significantly shorter than that. See Appendix B for interview questions.

I started each interview by introducing myself and saying a little bit about my work as an academic librarian and my interest in how students find, evaluate, and use information sources in their research writing papers. I mentioned that there are many ways of defining “research” and that for the purposes of the interview I defined it as secondary research—finding source material for a research assignment. I also specified that when I was talking about their “research paper” I was talking about the paper that they were working on at that time in Seminar in Composition. I also obtained verbal informed consent and double checked that all participants were at least 18 years old.

5.2.3 Data Analysis

To transcribe the interviews, I imported the audio into Adobe Premier Pro and used the automated transcription method to export a .txt file which I de-identified (assigning students a letter from A – E) and converted to a Word Document. In that document I then listened to each interview again to double check the transcript and make any necessary changes. I then imported the optimized Word files into the qualitative data analysis software NVivo. I also imported my class observation notes into the same project file. I used the constructivist approach of open coding grounded theory to code the interviews. This means I generated theories and interpretations through inductive analysis of my dataset instead of relying on pre-existing frameworks or codes. I

created my codes as I went along and developed themes and then theories during my analysis process. I went through each interview twice, once to create my code book, and a second time to code once I had my complete list of codes. For the instructor interviews and class observations I chose to annotate the files with reflective notes rather than code them because the corpus was so small and distinct from the student interviews. After coding student interviews, annotating instructor interviews, and assessing my class observation notes, I ranked the codes into categories, (known as “parent nodes” in NVivo) so I could see the relationship between different coding types. From these categories I pinpoint a few central themes in the data which I distill into my findings. NVivo also allowed me to run text analysis, query the files to compare different coding nodes, and quantitatively visualize datapoints. My findings in this chapter are based on my own coding and personal analysis of themes found in the data, though the text finding features and proximity features helped me to analyze what student interviews were closer in terms of theme and language and which ones were outliers. To reference my NVivo code book and to see relationships between nodes, see Appendix C.

5.3 Findings and Discussion

I overview some of the most frequent trends I found in my dataset in this section. While there are many themes that arose from the larger dataset, I focus here on two themes I found in student interviews specifically. I contextualize those findings with my class observations and the interviews I conducted with the class instructor to give dimension to the student quotes. This triangulation amongst student perspectives, instructor perspective, and my perspective as classroom observer provides meaning and depth to the comments students made regarding

curiosity and authority in the research process. I also show how these findings relate to, or complicate, previous research done on student research dispositions and habits.

5.3.1 Finding #1: Be Curious but Not Too Curious

I asked students how they choose topics to write on for research papers, what helps them be curious about their research project, and if anything ever deters them from approaching their projects with curiosity. Without fail, all the students said they liked to pick topics they cared about, and that feeling a personal connection or interest in the topic helped to pique their curiosity. Participants used words like “inspiring,” “passionate,” “personally enjoyable,” or “connection” to describe topics or projects that they cared about or were curious about. One student talked about a previous paper he wrote on Snapchat as one that inspired him and was very memorable because he learned a lot and was curious throughout the process: “Man, I keep talking about the same [paper], on Snapchat. What I was curious about, I mean, it's something that I actually use, and it's like, relevant to me. But most research I don't feel like very passionate about.” While students indicated they wanted to pick their topics, to care about them, some also recognized that having too much choice could be stressful and also lead to a lack of curiosity due to feeling overwhelmed. In terms of being cautious about their workload, students recognized that broad curiosity might lead to an interesting search experience, but it might also lead them off into the weeds. One student described shying away from topics she might be curious about, but that could take up a lot of time to research in a general education class. This effort, she thought, would be best spent on research projects related to her major or minor:

I think definitely if it created extra work to incorporate something that I was gonna be more passionate about but more loosely fit the boundaries that were set by the rubric, I think that I would certainly be the kind of person for a research writing class to take the easier concept and pick a topic pick a question that maybe I'm less curious about in order to give myself more time in other research settings that I'm more passionate about.

Another seemed very aware of the extra work it might take to pick a topic she may be curious about, but about which she did not have much knowledge. She described these as “challenging” topics or subjects:

...if there's a challenging topic or challenging subject I would be [curious] at first, but I don't want to get into that because I know it's complicated. And then in order for me to wrap my head around it, that's too much work. It's just too much work. So, I would veer more towards the easier, like, okay, like I may not be as curious, but it's easier for me to understand too.

This practicality in topic choice and balancing curiosity with the constraints of the assignment and student time constraints shows that students both want to do well on their assignments (in the eyes of their teacher, the grader) and try to enjoy it as much as possible. Ultimately, like everyone, students are busy and must prioritize, a reality instructors must remember when teaching for curiosity. Another example of this practicality is a student who described her topic development starting with the rubric and trying to find a way to make the assignment as interesting as possible within the given parameters:

I generally start with the rubric first and what the expectation is because those things are not changeable like I can't really get around what the rubric requires or what structure is needed, but I can work within that and try to get as much out as much leeway out of the rubric as possible. I kind of talk myself like, this is what I have to have. So here's what I can do with it...[I ask myself] how far can I take it and still get all the points?

While students said they liked to have flexibility or choice in their research topics, some also recognized that too much choice in topics or research parameters might make it hard to narrow down their topics into a scope that would be achievable. It also might make it harder to know where to find “appropriate” source material:

...I don't like too much leeway, okay? I like freedom in the sense I get to pick what I'm interested in if that makes sense. But [my teacher] just telling us you have all of the free rein to do whatever you want because, yes, I picked ... my topic. I love that I chose it, but now I want [my teacher] to tell me what to do. Do I look at Google Scholar? Do you want me to look there? You want me to look at like a different like EBSCO or whatever? So not telling me where to look is what's terrifying to me because I don't want to procure a wrong article. And not give sufficient enough evidence.

Even before I interviewed the students, I talked to the instructor, and she showed a deep awareness that students care about choosing their topics/caring about their topics. However, as many experienced instructors know, giving students free rein sometimes leads to general final papers as opposed to narrowed topics that are specific enough to fully flesh out. In other words, instructors are aware that students want a say in their paper topics, but given their experience,

know that students also need guidance in topic narrowing and development. Guiding students in the research journey by starting with a somewhat narrowed topic can be a helpful scaffolding technique. Yet balancing those constraints with choice is key to student motivation and buy in. In the words of the instructor: “I’m helping them kind of go in a direction with their curiosity but in a focused way. I try to build in curiosity-building exercises to encourage [curiosity]. And then we actually confront that head on: How do you how do you handle topics that you’re just not interested in? What do we do? What do we do when we are asked to write something like that?” One way this instructor tried to give students choices while still guiding them was through giving them some leeway in topic, but also leeway in the kinds of sources they would use and approaches they would take throughout the paper—for instance allowing for a more personal tone and reflection alongside evidence and analysis-based writing. As evidenced by the quotes I have already shared, some students found that freedom exciting, and others, a little scary. This is difficult because instructors like myself may both want to encourage curiosity and openness while at the same time also scaffolding and directing students toward fruitful lines of inquiry.

These findings corroborate previous interview-based research done with student researchers by Project Information Literacy (PIL) regarding topic narrowing and development. PIL found that students used language associated with gambling to describe their fraught experiences with finding and narrowing an “appropriate” research topic. Indeed, “The beginning of research is when the first bets were placed. Choosing a topic is fraught with risk for many students. As one student acknowledged in interviews: either a topic worked well, or it failed when it was too late to change it.” (“Truth be told” 32). This was compounded by the students’ anxieties related to work in other classes. As PIL explains, “Add in the constraints of timing, grades, and too much available information to scour—and the difficulties with beginning research are put into

high relief. The odds of “winning” this bet are significantly compromised when these factors come into play” (33). The students I interviewed showed similar worries, even if they did not use gambling language. They overall wanted to be engaged and interested in their research topics but were very aware of what they could or could not accomplish within the parameters of a formalized learning (and assessed learning) experience. It does make me wonder as instructor how to foster openness and curiosity within such institutional realities, when everything can seem so tenuous for our students. This is something I address both in Chapter 2 on critical curiosity and that I revisit in the conclusion of this chapter. It is also worth noting that when self-reporting it is possible for participants to formulate answers that correspond with what they think their listener (in this case me, the interviewer) would like to hear. Indeed, students showed themselves to be very aware of rhetorical situations and the performative nature of classroom politics. I address this possibility in my limitations section in more detail.

And yet the passion I witnessed during in class discussions was heartening and gave me reason to believe their interest in being engaged with their work was genuine. In one class students were asked to discuss their burgeoning topics with a partner. Two students sitting next to me shared with each other their experiences as individuals from minority groups that were treated very differently from each other in academic settings. They spoke with fervor about their experiences, discussed the sources they found that corroborated and challenged those narratives, and because of their embodied experiences, were able to shed light on the other’s experience by providing a sounding board for ideas and potential assertions. These moments where students could openly talk about their topics in a low-stakes environment showed their underlying investment in their papers, as well as openness to learn from their peers’ experiences.

5.3.2 Finding #2: Objectivity Bias

In addition to questions about curiosity and their dispositions towards the research process, I asked specific questions about authority and what sources students gravitated to for their papers. I wanted students to reflect on how they chose the sources they did, and why they were attracted to them. I tried to hone in on these moments of discernment, when a student would decide to use, or cast aside, a source. I wanted to pinpoint which ones they held onto and which ones they decided not to use and what went into that decision. Our conversations showed a deep rhetorical awareness on the part of the students to appear objective in their source use, reporting that they liked to use unbiased source material and shied away from opinion-based evidence. The students used language like “objective,” “fact-based,” “scientific,” and “data-driven” to describe the kinds of sources they found authoritative. Students showed a keen awareness of bias, even their own, in information finding contexts. They recognized, in some ways, the power that information finding platforms have to influence belief and action on a social level. I found their focus on “objective” sources surprising given the fact that they were writing papers based on critical, autobiographical readings (see Appendix A for assignment overview). Indeed, the instructor and I spoke at length about this. She said that she wanted students to understand the value in different research methods and especially that qualitative research is sometimes categorized as lacking objectivity. Class discussions pushed back against a blanket acceptance of objectivity with the teacher explaining, “I teach ways to make qualitative work stand out as an impactful writing style that can emphasize analysis, stories, observations, and recordkeeping.” The classes I observed certainly included these kinds of discussions.

Even with this context there is an enormous pressure to *perform* objectivity in source finding and usage that is worth noting. Ultimately, students showed an awareness that academic writing is meant to take on a certain tone and have certain kinds of sources to fit into predefined “research writing” genre constraints. Students were aware that they would be assessed on the quality of their information—and high-quality information, they explained, was “scientific” in nature. I am terming this an *objectivity bias*, or at least a focus, or preference, for seemingly “unbiased” sources over “opinion” based ones. This is not bad or wrong—I make no value judgement. Instead, the proclivity to focus on these kinds of sources speaks to the ways students think about authority, and their own enacted dispositions, as research writers. In this sense I observed students wanting to appear unbiased as researchers and writers, causing them to favor “objective” and “scientific” sources which used Western empiricist research methods as evidence for claims as opposed to sources relying on personal examples, narrative, or more qualitative means of providing evidence.

One student wrote about balancing the personal and the scientific in her paper explaining that she was emotionally moved by a source of a personal account, but wanted to back it up with more evidence-based research:

I knew I wanted [a case study] for one of my sources. If I could, I wanted to look for a study where [my research topic] is involved and I found one via a Google scholar. I also found a personal story, which can come across as biased, I know, but I wanted to be moved in a way by the story... Her story particularly, it really moved me in a way because it was just it was really showing how she grew and she progressed in this world. And now she wanted to go back and help the community... So her story, it just it brought another

level to my essay. So those were the part of the pieces that really came together.

Her reflection on bias here was interesting, because she was almost apologetic for wanting to use a personal source in her paper—she felt she had to justify it even though it could come “across as biased.” She described the value the personal (or experiential, narrative-based composition) brought to the paper in terms of pathos but wanted to balance it with something that felt more “academic,” showing significant rhetorical awareness of what kinds of sources she thought might convince a scholarly readership of her points. Another student also focused on her personal biases when approaching news sources. She described avoiding conservative news platforms because of personal preference, and in a stunning connection, traced that to blanket acceptance of peer-reviewed sources:

I automatically write something off if it's from a source that I deem to be not reliable. If it's a news source, you know, I'm not a big Fox News girl. So, I think we automatically make really big assumptions about content based on the platform that it's posted on. And this could be bad, too, in the sense that if something's published in a well-known academic journal, you're probably quick to say, okay, this is this is pretty reliable.

This self-awareness on the part of this student is significant to note. Much literature on student source-evaluation behaviors like the Stanford History of Education group describes young people as being easily “duped” by misinformation (Wineburg 4). While navigating the prickly online information landscape which is full of misinformation and disinformation, it is indeed difficult to recognize problematic source material. Yet the students I talked to spent time thinking about what kind of sources they thought were expected to use in their writing contexts, and how that reflected

on them as information consumers. In other words, students seem to understand that they are perceived as naïve targets of misinformation and disinformation, and their answers reflected a concerted effort to avoid these kinds of sources.

Another student reflected on the difference between credible source material and authoritative source material. Though he conflated the idea of websites and search platforms, he articulated the enormous power Google, as an information discovery tool, has on its users. This, to me, was another moment of strong awareness of the political dimensions of information circulation:

So I guess “credible” would be that they provide actual facts. They don't twist the truth. They don't make up things just to say something, but they provide hard facts, whereas “authoritative” would be a source that would have influence over other websites if that kind of makes sense. I guess I could use Google as one, right? They have the authority of choosing what we see. So, I'd say that would be one example of an authoritative website.

While credibility and authority are constructed and contextual as I have discussed elsewhere in this dissertation, and “truth” is a hard thing to pin down, this student traced the idea of authority to *influence*—specifically influencing information circulation and access. While this student, like the others, defined credible as unbiased, he also spoke to wider realities of information ecosystems in which some information is more widely “seen” (and therefore used) than other information.

Other students talked about credible source material being unbiased and found primarily in scholarly arenas. To this next student, finding information on a database gave it some level of reliability whereas news sources were more suspect, due to questions of objectivity:

Well, I feel like if a database has information that I find relevant to the topic that I want to pursue, I would typically trust most things in there. I do always give them like a read through for any like obvious bias and or some facts that seem a little bit far-fetched. But I feel like databases are typically pretty reliable. If I have to turn to Google Scholar or just Google I definitely look at those ones a little bit more intensely. I feel like there are some websites to me that are fairly reliable. Like The New York Times is okay, but I feel like they definitely dove into a lot of like opinion-based writing, which makes me question it a little bit more. But like Reuters, I typically trust things from that type of source. Sources that are known to be fairly unbiased in their approaches to a lot of issues, especially because I feel like a lot of the writing is about like current events. And I feel like when I pick a source, I don't I don't want to pick one that's known to be one side or the other because that I feel like that interferes with the validity of what I'm trying to say.

The students I interviewed in this study overwhelmingly used the language of empiricism to associate source material with credibility, reliability, and authority. The above student's worries about news sources and bias are well-founded and reflect an overarching anxiety I observed my students struggling with regarding objectivity, bias, and authoritative material. When asked what materials they found and which ones they avoided, students kept reiterating that opinion writing (or other "personal" writing like narratives using first person language) did not make for good source material, while, in the words of the above student, sources found on "databases" were better. This is not an incorrect assumption on their part. In an era of misinformation and disinformation, students are skeptical—and in post-Trump America, news source material is especially fraught (I

treat this at length in my first chapter). My own previous research corroborates the idea that students are overly skeptical of sources, but still have a hard time articulating what actually makes a source “good” (Silva, Green, and Mendoza).

These next two examples describe moments where participants decided *not* to use source material in their papers due to worries about bias. The first student said of an opinion piece in the *New York Times*: “I found one source. It had a lot of information, but it was like a *New York Times* article. I thought that was kind of helpful when I was reading it, but it was very biased. I could tell that the writer felt one way, which isn’t really good, you know.” There was significant focus on the *New York Times* as a source, possibly because in class the instructor showed students how to sign up for a free account and search the newspaper archives as part of her research demonstration. Students were encouraged to use popular new sources alongside journal articles for their paper. In my interviews students did not seem to delineate between reporting and opinion pieces in their engagement with the paper, however. Another student discussed religious bias as being something that caused her to shy away from a source: “I found a lot of pieces that had almost a religious affiliation to them. I know it was very strange. ... I don't tend to mix religion and academics. I tend to take a secular approach. So, I think any bias like that, that was very obvious.” Both of these examples hone in on a moment of discernment when a student has an information object in hand and decides not to use it. Both students use bias as a metric to discount a source—or to move on to other sources they thought would be more helpful or convincing to their readers. In other words, both students say that the less opinionated a source seemed to be, the more it influences their opinion about its credibility and reliability for their academic writing projects. The second example contextualizes why the bias is problematic in this writing context. She believes her writing needed to stay secular, and that religious influence does not add credibility to her composition.

In addition to discussing discovery platforms and publications venues as ways to assess source value, students reported considering the source itself, its writing, its web presence, its authors, its content, and its works cited list as a way understanding its value. One student described being impressed by authorship, particularly scholarly authorship:

When I'm reading like the abstract and then it's very much the language that they use, you can tell it's not common everyday language like they've done the research. And especially when you look at the authors, all you see is doctor, doctor, doctor, doctor, doctor. So, it's just, you know, these people know what they're talking about. And so I'm looking at the authors. I'm like, okay, like I know this is relevant, good information and it's valid so I feel like when it comes to credibility, I very much look at the authors and then I look at the abstract because those two things will tell me like, Okay, I know what I'm reading I know that is professional enough, professional enough to the point where it's valid and it's credible information.

Another student expressed difficulty in finding the words to describe what made a source authoritative but ultimately said that he liked to find peer-reviewed research. His reflection that he did not know how to verify if a source was peer reviewed was illuminating because it showcases a self-aware knowledge gap regarding how academic publishing can be verified and how different kinds of information in these arenas might be verified. This student knew what to look for, just not how to look for it:

I mean authoritative? I feel like I don't know the words I want to say, like the presentation, like the organization of it is like part of it because like, if

it doesn't look if it doesn't look presentable, then it's like I'm not going to read from it. But if it lists sources like where it gets its information from, it... I always hear peer reviewed, but I don't even know, like how to see if like an article is peer reviewed.

I end with this confusion over source-type verification because it represents a wider reality on the part of these students who know teachers are going to look for “good” information, even “scholarly” information. While students were consistent in asserting that they considered “objective” sources authoritative every single student also confided in me that they struggled with academic information finding skills like database searching, keyword searches, or using Boolean operators. At the end of each interview, I asked students what they wish they knew about research that they did not, or what they struggled with in research settings, and each student disclosed discomfort in finding the very information they said they trusted.

I began this chapter with an overview of scholarship that suggested a focus on process and student journeys through that process is an important way of teaching and assessing source-based writing. Focusing on the final product misses the important dispositions cultivated when finding sources, discerning which material to use, and incorporating research into a paper. My student interviews convince me all the more of this need to focus on iterative and complex information gathering and evaluation processes as part of our pedagogy. By this I mean spending more time discussing the political implications of “objectivity” and source authority. I also mean spending time clarifying what can be a very opaque process of information finding, retrieval, sorting, and access. In part, this focus on process can help complicate student research dispositions which may have been formed by answer-getting, as opposed to problem-solving or exploration.

The students I spoke to were quite self-aware, and rhetorically positioned themselves within the educational constructs they understood. They were wary of bias for good reason, and also wary of creating extra work for themselves in their time-constrained realities. They seemed to know what kinds of sources teachers would expect them to use. In other words, they had the answers (biased sources are bad!) but what I found missing was confidence in the process (how do I navigate search platforms to find the kind of information I seek?). Given the tone of these interviews, students seem to understand that a certain kind of information is expected in research writing contexts were perhaps not always as well-equipped to describe why this kind of information is “better” or even how to ultimately find it. We might also think of ways to complicate their notions of objectivity and bias—bringing more awareness to how information is created and positioned within wider institutional realities and power dynamics, something I have treated at length in this dissertation and return to in the conclusion of the chapter.

5.4 Limitations

This beta-study was small-scale and incredibly context-specific. This means that results would be difficult to replicate given that we know student dispositions can change based on their assignments. Further, self-reporting is filtered through individuals who may hide or embellish information about themselves in an interview setting. My sample size was small, though I had considerable luck recruiting students—five students out of 18 enrolled in the class participated in both interviews, equaling 28% of the class. Finally, the assignment did not require very many sources cited, so a more “research heavy” experience might have yielded different results. The feeling students shared with me, though, given my years of experience teaching in both

composition and library settings, did not surprise me. Coming into the study I assumed students would want to write on things they cared about. What surprised me was how much they talked about only trusting objective source material in a writing context that originated with two critical, auto-biographical narratives. Indeed, as the assignment overview in Appendix A shows, students were to put two critical readings into conversation with one another to answer a question about the changing nature of academia, adding research to bolster their claims. The instructor encouraged exploration and allowed for popular sources as well as academic ones. Even within this context, students still described anxiety over appearing biased as writers and a proclivity towards searching in academic databases for peer-reviewed source material.

Ethnographic researchers and increasingly others in the social sciences include a positionality statement in their work, an acknowledgement of their subjectivity as a researcher (Sybing). This practice is meant to provide transparency and reflect on the role of the researcher in the reporting process. In other words, it is meant to contextualize any research claims using these methods to study human behavior. By way of acknowledging my part as the lens through which these students' comments and actions are mediated, I must admit that my findings make me ponder the relationship between myself as the researcher and my student research participants as much as it makes me ponder their relationship to sources and the research writing process itself. I, a self-described former librarian and therefore, my participants might intuit, an information finding expert, asked students what made them curious in research writing contexts. I also asked how they went about finding information for those same projects. By so doing I placed my participants in a situation in which they may have felt a need to give me particular answers, what I have described thus far in this chapter as "performing objectivity" or "objectivity bias." But this bias toward the objective, and discounting of "opinionated" or "personal" evidence still communicates important

impulses on the part of the students and their dispositions as researchers; namely, that their dispositions are very much influenced by their rhetorical situations, whether that be the grade they hope to get, or the way they hope a researcher views and reports on their source finding abilities. Students are incredibly adept at “reading the room” and responding to rhetorical exigencies in educational spaces. While any research method comes with limitations, flagging the ones that are present here helps interpret results within their reasonable constraints, and hopefully allows for more meaningful implications and, in this case, pedagogical interventions.

5.5 Conclusion and Directions for Further Research

My interviews showed that students are bringing a great deal to the table in terms of their research dispositions and understanding of information ecologies. Students are aware of their time constraints and want to be interested in their writing. They try to find viable source material and are conscientious of their rhetorical position as learners whose writing will be ultimately assessed via a grade. Students understand that information environments are full of misinformation and disinformation. To combat this, they think that objective and “non-biased” sources are safe to use.

It would be interesting to track when and how these notions of objectivity change or mature as students move from novice to more expert researchers throughout their time at the university. Studies following up on student understanding of bias might include longitudinal studies over the course of an undergraduate’s education or could compare different demographics of researchers: first-year students, graduate students, and research faculty. It also speaks to the wider importance

of building more robust information literacy instruction into general education curriculum.¹⁷ This might include practice in critical keyword searching and more discussions on contextual authority given how different kinds of sources function within different information needs.¹⁸ I discuss contextual authority at length in Chapter 1 and give an example of a critical search. Given the fact that so many students admitted confusion over how to use databases, critical search instruction might include search demos, co-searching, and working to critically understand what is happening invisibly on different search platforms. Keywords, for example, are not neutral and are context specific. Search platforms have their own assumptions and ways of showing results. Further, accessing information that feels “free” to students through a university database, for instance, is most certainly not “free.” Much of these ideas I have treated at length in previous chapters of this dissertation and bear repeating here as areas to help students understand how *information comes to be* and their role on those creation processes. Critical information literacy methods might be a helpful way for writing instructors to frame such discussions, along with teaching the search proficiencies students say they lack.

These findings open other interesting avenues for future research as well, especially in relation to the moment of discernment where a student decides whether to use, or not use, a source. This moment also extends to how chosen sources are integrated into the final paper. These choices

17 I am far from the first scholar to suggest this. See Wiebe, Bowles-Terry and Donovan, Sullivan and Porter. Librarians have long been trying to incorporate information literacy across the curriculum and extend their face to face time with student researchers.

18Jon Ostenson and I write about how to help students understand information needs early in their search process and in so doing, help them match appropriate source material to those needs. See “Avoiding Fakery: Activities to Prepare Students for Effective Searches.”

are hard to capture. I have tried to do so here by asking students to recall these moments. In my previous research I tried to capture those moments using screen recording and talk aloud protocols. Further research on the moment of discernment might include more analysis of the final written product in addition to mapping out and tracing a student's progress through a research paper. This might blend ethnography, observation of research behaviors, and citation analysis. Talking through choices as they are being made rather than having students recall their choices, or passively observe them, could give researchers valuable datapoints.

It is also worth exploring how privileging “objectivity” over “subjectivity” may actually bolster misinformation culture. The irony is that in performing objectivity themselves students may not understand that their sources often do the same thing. This is something I explored at length in the last chapter on Wikipedia and the platform's neutrality claims. Objectivity carries with it rhetorical power. Readers are empowered when authors are up front about their subjectivities because they can decide how to frame those sources for their own work. They are also empowered when they understand how objectivity claims function in institutional authority structures like the academy and wider histories of Western empiricism. In many ways I have tried to be aware, insofar as it is possible, of my subjectivities as a researcher while approaching this study and while writing this chapter. Students seem to have internalized explanations that scholarly sources are valuable because they are objective, or fact based. Like authority, though, objectivity is constructed and contextual and coming across as “unbiased” can be an act of persuasion in and of itself. Or further, some authority does come from openly subjective accounts of lived experience and dismissal of this kind of authority is severely limiting. *The New York Times* is an interesting example of “subjectivity” that came up in the study. Many students consulted the source, but few used it. Students avoided citing the *Times* because they were worried it was not objective enough.

While I did not ask about the sources specifically, it sounded like some of the articles they found in the *Times* were personal interest or even opinion pieces. Generally, those kinds of genres are labeled and as such, the authors of these writings are giving readers a sense of what the article is trying to accomplish: elicit a feeling, persuade, or provide an alternative perspective. Perhaps complicating constructions of objectivity might be worthwhile as part of our information evaluation discussions. Or, perhaps more discussions of how we value the authority of narrative and lived experiential authority. With a more nuanced understanding of “bias,” students might begin to see objectivity/subjectivity not as a binary, but instead, as a spectrum—one created within histories of Western empiricism and power. This does not mean that scientific sources are not valuable or that they should not consult them. It certainly does not mean that they should ignore scientific consensus. Instead, it means that they begin to see sources within wider modes of knowledge-production and their relationality towards those processes. Ultimately students might then be better equipped to ask how transparent different kinds of writings are about what purposes they serve, what has gone into their making, not in order to discredit, but to contextualize.

If students are approaching the research process trying to mimic the “objectivity” they say they want from their sources, what power structures might they be enacting, even if unwittingly? How do we teach them to both perform within academic writing contexts in which they will need to take up tones of objectivity and use certain sources, while also questioning the ways those choices affect wider knowledge-making structures? This, in many ways, underlines the question of authority that began my dissertation project. How do we teach to and against authority? How do we teach students to treat “objectivity” as one research disposition among many? Empowering students to ask critical questions of source finding, evaluation, and use requires a great deal of time unpacking processes of information creation, dissemination and access—something we may or

may not have time to do in a semester-long writing course. Given our students' very understandable grounding in practical approaches to writing given their time constraints, I also wonder how possible it actually is to foster openness and curiosity within such institutional realities, as an instructor of writing, when everything can seem so tenuous for our students. Perhaps these conversations need to take place on higher levels, within general education programs that cross disciplines. Ultimately writing instructors themselves must be honest and practical about what can and cannot be taught in their classes, focusing on one or two tangible ways to combat misinformation culture—perhaps by complicating notions of bias, and perhaps also by teaching towards critical curiosity.

The other part of this study, understanding how curiosity functions as a disposition, is another promising area of research. Curiosity might come into the picture in several moments throughout the writing process including when students are inventing and narrowing topics, searching for information, and composing their papers. Pinpointing the highest impact moments of curiosity for student satisfaction and for paper quality might be helpful. These studies might include longitudinal analysis inviting students to describe their curiosity over several assignments, or in different classes. It might also be built around assignment design where different assignments are introduced with language that encourages curiosity in different parts of the research and writing processes. This could be paired with pre and post testing in those different assignments. Ethnographic observations, interviews, and analysis of student reflective work before and after writing the paper could help us better understand where curiosity might be best encouraged to serve students in research writing assignments. More work with community programs like the HYPE Media example from the previous chapter might also influence how we teach and exist in

university writing settings. These could be an avenue to imagine different modes of curiosity and different constructions of authority.

The findings of my current study solidify what is already known about good research writing pedagogy in general. Namely, that we should scaffold topic selection and narrowing by giving students some leeway, but not too much. Psychologists have long understood that having too many choices can lead to decision paralysis. Further, too much choice flexibility can diminish satisfaction as individuals wonder if they missed out on a better choice from an infinite number of roads not traveled (Tang, et al.). Finding “just enough” balance may be difficult, but building low stakes exploratory prewriting assignments, in addition to building in room for failure (focusing on it even, as I describe in Chapter 2) we could potentially foster more curiosity and open-ended searching rather than answer getting. As Peter Elbow argued in 1997 “writing *feels* like an inherently high stakes activity” (6 “High Stakes and Low Stakes”). Because of this, students put a lot of weight into what topics they choose and seem anxious about appearing biased in their source use as well. These dispositions do not foster curiosity and exploration, but instead rigidity and fear. Contemporary discussions of low-stakes writing distinguish “writing to show” from “writing to learn,” the latter made up of low-stakes assignments which are “quick formative compositions that establish the limits of what a writer knows, what they don’t know, while spotlighting pathways for further inquiry” (Cunningham 76). Such assignments may happen within and congruent with larger assignments like research projects, and as such, inform their outcomes.

In my first interview with students, I asked them how they *felt* about research writing. I expected students to unanimously respond negatively to the question. However, what was unanimous about their responses was not “I hate it” but instead, “it depends.” Students described interesting papers they had written in the past, and what excited them about research. One student

said that if she were researching a topic she liked, she could do it “all day long.” Students started exhibiting negative attitudes towards research writing when they felt constrained or overwhelmed by the assignment. One student said while he’s “not usually trippin’ over research,” papers requiring large bibliographies were intimidating to him. Along with low stakes writing, critical co-searching, and giving students appropriate flexibility in topic selection, we might also consider the ways our assignments are written. We cannot influence how students come into our classes, the baggage they carry from institutional culture or assessment culture. What we can influence is how our assignments deviate from those previous experiences in meaningful ways that help students understand how source-based writing functions within wider knowledge-making realities. We can also question how we, as instructors and researchers ourselves, function within those same systems.

6.0 Conclusion: Research Writing, Online Research, and the Brave New World of ChatGPT

I am writing this conclusion during an explosive discussion regarding writing. ChatGPT is flexing its growing muscles and writing teachers and composition program administrators must decide how to interact with this technology. Do we accept it? Reject it? Ban it? Allow it? How do we recognize it and encourage thoughtful interaction with what will surely become a staple of generated writing for years to come? In the next year a growing number of competing products will be on the market vying for our attention with the promise of easy writing, easy research, and easy outputs. But anyone reading this dissertation knows that *good research is not easy*. This is not a hype bandwagon, though. ChatGPT and other large language models will drastically change the landscape of writing. These products will change the way students approach research questions and the language they use to search for answers.

So, at the risk of sounding un-original, I'll jump on the bandwagon myself in the name of critical curiosity. It will only be a matter of time before this next move becomes trite, so I'd better do it now. The next portion of this conclusion was written by ChatGPT with my prompt: "Please help me understand how ChatGPT is going to change the way we research on the internet and write research papers." ChatGPT generated the following:

As an AI language model, ChatGPT has the potential to significantly impact the way we research on the internet and write research papers. Here are some ways in which ChatGPT could change the research process:

1. Assistance with research: ChatGPT can help researchers with the initial stages of research by providing relevant information and sources for a given topic. This can save researchers a significant amount of time and help them narrow down their research focus.
2. Improved writing: ChatGPT can assist with writing by providing suggestions for sentence structure, grammar, and word choice. This can help researchers write more clearly and concisely, ultimately resulting in a better-written paper.
3. Automated summarization: ChatGPT can summarize large amounts of text, making it easier for researchers to quickly understand and process the information they need. This can help researchers identify key points and ideas more efficiently.
4. Enhanced collaboration: ChatGPT can facilitate collaboration among researchers by helping to generate ideas and provide input on various aspects of the research process. This can help researchers work together more efficiently and effectively.

Overall, ChatGPT has the potential to significantly improve the research process by providing assistance with research, improving

writing, automating summarization, and enhancing collaboration. However, it's important to note that ChatGPT should not be relied upon solely for research and writing, and researchers should continue to use their critical thinking skills and conduct thorough research to ensure the accuracy and validity of their work¹⁹. (“Please help me understand”)

The text produced by ChatGPT here says that it has the “potential to significantly *improve* the research process.” I would say, instead, that it has the “potential to significantly *change*” the research process—not necessarily cut out labor but redistribute it. What kinds of labor might look different as students use this technology to research? How does that relate to the work I’ve done in the body of this dissertation?

I have tried to argue in this dissertation that teaching flexible approaches to both interacting with and creating information is key in the information age. Such approaches would do well to show an awareness of institutional constructions of authority and power. Technology is part of these longer histories. It is changing and we must be nimble in our response to it. The generated ChatGPT text I have copied and pasted into this conclusion is not wrong. It’s also not complete. Perhaps this is a major point I am trying to make: there is not one way to research and there is not one way to know. Some modes of research and knowing have been exclusionary constructions of

¹⁹ I would also like to acknowledge the language from many, many people with which this model was trained. Not acknowledging them would be like not citing them. The fact that citation conventions surrounding this technology are still in flux reveals a great upheaval in how we are conceptualizing authorship, intellectual property, and attribution. In other words, it becomes a matter of citation politics.

authority. It is worth asking how ChatGPT is likewise enacting certain textual histories and excluding others in its training mechanisms. Though we cannot always foresee the ways that internet searching and research technology will change, what we can do is become more aware of ourselves and practice asking critically curious questions about these technologies. We can question information production modes (including our own as research writers) in addition to questioning information finding platforms. The questions I ask of ChatGPT are the ones I would ask of any information object: How is this created? Where did this information come from? Who made it? Who can access it? What is its value (both economically and socially)? How am I engaging with it and for what ends? What authority does it hold and how is that constructed? Why am I drawn (or not drawn) to this? How can I cautiously approach it with interest?

As I conclude this dissertation, I worry that my answers might seem to reproduce the very problems with which I started. Namely, that in the face of uncertain authority markers, individuals retreat to personal belief and ideology to make credibility claims. This has fueled a misinformation culture in which people believe what they want to believe (even if they say, like my student participants said, that they prefer “objective” sources). By questioning “objectivity” and Western empiricism have I merely created more room for individuals to retreat into personal experience as an authority marker to determine information’s reliability? I hope not. What I hope I have done is argued that informed skepticism, critical curiosity, and extended engagement with sources and with ourselves is a way of envisioning a more sustainable relationship with information. This relates to both the information we find and consume and the information we make. In this sense, personal experience is both a problem and an answer. It’s a problem when it is used to marginalize and oppress, and it can be an answer when it is used to increase representation and complicate power structures. Personal judgment is both a problem and an answer. It is a problem when it is

done as a way of stifling discussion, and it can be an answer when it is done with self-reflection and an awareness of one's position within wider information ecosystems, institutions, and knowledge creation processes. One disposition makes space and encourages further research and understanding. The other does not. These dispositions are not binaries, of course, but spectrums along which we must place ourselves and help our students become self-conscious in seeing.

Ultimately research methods can also both be problematic and provide answers. Taking up different methods with an awareness of where they come from and why they function the way they do is part of being an ethical researcher. The dichotomy readers may have felt between my final two application chapters is part of this exploration. The chapters differ in method, tone, and outcome. They asked similar questions, but they asked them differently. They did not discount each other but were able to both exist within the text of this document as simultaneous examples of how we come to know, how we question, and how we further knowledge. Secondary research models relying on library cataloging systems and information networks that create information ontologies based on arbitrary categories are also important structures to use as well as interrogate. Methods are built and enacted by humans; they are not inevitable or natural.

What worries me about ChatGPT is not only what I see in its generated responses, though the implications for misinformation and disinformation are surely there. It is also in the absences—what I do not see in its textual output. Like the Wikipedia writing project, I think that focusing on the gaps in information ecosystems will allow us to pinpoint who and what is being left out of information creation processes. In this sense my worries are not as much about the product as they are about the processes we use to get to that product. This is the work of critical curiosity and the wider work of critical research practices.

ChatGPT is going to affect how our students think about keywords, how they go about inventing research topics. It will change their topic narrowing mindscapes. So much of discovery happens in these early moments of writing. It is worth understanding how these new technologies might become thought partners in these processes. Some writing teachers may think this technology will make their jobs irrelevant, eradicate their professions and their expertise. On the contrary, in the years to come I think compositionists will be all the more relevant. Writing scholars will be well-positioned to delve deeply into what we write, how we write, and why we write. I hope information professionals likewise will be a part of these discussions. My dissertation shows how the intersection of writing studies, information studies, and critical digital studies provides great room for social justice and self-awareness. ChatGPT is just the newest, flashiest application of such.

Appendix A

Assignment Overview

Overview of essay that needs to include some research and exploration of contemporary ideas on the meaning of academia.

Comparative Analysis & Commentary

1. Compare the ways Joy Castro and Jennine Capó Crucet define “academia” and “academic.” What types of topics and subjects do they explore in their writing? How do these writers sometimes defy some of the traditionally academic conventions in their work?
2. Commentary: Is the definition of academic work changing in the twenty-first century? Include a few sources to support and elaborate on your ideas.
3. How do Crucet and Castro shed light on this idea?
4. Commentary: How do you define academic work? How much does reading about academics and their ideas influence your thinking on this?
5. Demonstrate formal tone and style in the writing
6. MLA Style conventions preferred, but APA will be accepted as well
7. 5-7 pages (7 max), and this IS inclusive of a Works Cited page at the end (including two or three sources would be appropriate for this paper)

Appendix B

Interview Questions

First Student Interview

1. How old are you?
2. What kind of research writing have you done prior to this class?
3. How do you feel about research writing?
4. How do you choose a topic to write on?
5. Are you ever curious about what you write on? If so, what helps you be curious? If not, what deters you from it?
6. How do you decide what kinds of sources to use?
7. What do you think makes a source authoritative and why?
8. What do you think makes a source not authoritative and why?
9. Can you tell me about some sources you've found for this project?
10. What is the point of research writing?
11. What is something you wish you knew about research that you don't? In other words, what do you struggle with?

Second Student Interview

1. How is your research paper coming? Can you tell me about the topic and how you chose it?
2. Can you tell me about something that you've found, come across, or encountered in your research that surprised you?
3. Can you tell me if you've felt curious or interested in your topic at all? Explain the feeling and what about it made you curious or interested. If not, can you talk about that?
4. Are there any sources that you found that you decided not to use? How did you decide not to use them?
5. What has been the hardest part of this research project?
6. What has been the most rewarding part of this research project?

7. Can you tell me about specific sources you're working with? How do you read them and decide what parts to use—quote, paraphrase, or summarize.
8. Tell me what the purpose of research writing is, in your opinion.
9. Tell me what makes a good source, in your opinion.

First Instructor Interview

1. Tell me about your teaching background.
2. Tell me about the assignment the students are working on for this unit.
3. Tell me about your pedagogy regarding research writing. What are your outcomes? What do you want students to learn from the process?
4. Tell me about the role that curiosity plays in research. Do you find students to be curious? What helps them or deters them, do you think?
5. What do you think students generally enjoy about research writing? What do you think they struggle with the most?
6. How do you teach students to find and evaluate source material?
7. What do you consider an authoritative source?
8. What do you consider a not authoritative source?
9. I wonder what students want to know about research writing vs what you want them to know about research writing – how those things intersect or diverge. What are your thoughts?
10. What do you personally get from your own research writing? What do you think it offers you as a scholar, or thinker, as a mode of communicating knowledge?

Second Instructor Interview

1. Now that you've graded the assignments, how do you think the unit went?
2. What were some things you were excited to see in the final papers?
3. Any patterns in the final papers that disappointed you on a macro level?
4. You gave the students a lot of leeway in the kinds of sources they could use. I'm wondering how they did. What kinds of sources you saw in the final papers.
5. You introduced this paper as an academic genre. What do you think it means to be an academic writer?
6. What do you think the students think it means to be an academic writer?
7. The assignment asks for formal tone and style. Tell me more about what that means in writing where there are reflective elements allowed as well.

8. Tell me about what you think students get out of an annotated bibliography? It's such a ubiquitous genre (I assign it!) but I can never tell if it's helpful for students.
9. I loved how you help students look for guiding questions, but also realize that they won't always find "the" answers (instead there are many answers). Could you tell a little more about that approach and why you think it matters in a first-year writing course.
10. This was a new-ish assignment for you. In the name of curiosity, how did it go? What did you like about this assignment and what might you change in the future?

Appendix C

Code Book

Nodes			
Name	Files	Referen	
High School	4	4	
Source Finding	5	7	
Search Strategies	1	1	
Struggling to Find Sources	2	2	
Keywords	3	5	
Difficulty Using Databases	1	2	
Narrowing Search Results	2	2	
Preparation for Future	2	2	
Practicality	2	3	
College Research Paper	1	1	
Discovery or Surprise	5	7	
New Point of View	1	2	
Personal Beliefs, Morals, or Assumptions	2	2	
Information Literacy	2	3	
Domain Expertise	2	3	
Evidence or Facts	5	8	
Data	4	6	
Works Cited or Bibliography	2	5	
Bias	4	5	
United States	2	2	
Education and Technology	1	1	
Timely Topic	1	1	
Source Attribute or Type	0	0	
Source Author	1	1	
Source Content	3	5	
Source Credibility	2	4	
Source Date	1	1	
Source Design or Layout	2	3	
.com .org .gov	2	4	
Case Study	1	1	
Relevance	3	3	
Publishing Venue	1	2	
Academic Article	2	2	
Source Specificity	1	2	
Perfect Source	2	3	
Personal Stories or Anechdots	2	6	

[-]	○ Ease or Difficulty			0	0
	○ Easy or Low Effort			3	4
	○ Extra Work or More Effort			2	4
	○ Challenging			1	1
	○ Overwhelm			3	6
	○ Confusion			1	1
[-]	○ Invention			0	0
	○ Background Research			4	4
	○ Starting to Write			2	2
	○ Topic Narrowing			3	4
	○ Question or Inquiry			1	1
[-]	○ Discovery Tool			0	0
	○ PitCat			2	3
	○ Google			4	12
	○ Database			5	12
	○ Google Scholar			3	3
[-]	○ Diversity in Higher Ed			5	7
	⊕ ○ Race			0	0
	○ First Gen College Student			3	3
	○ Low Income Students			1	1
[-]	○ Relationship to Instructor or Grade			0	0
	○ Teacher Expectations or Grade Motivation			3	4
	○ Teacher Opinion or Directions			3	4
[-]	○ Final Paper			0	0
	○ Fluff			1	2
	○ Page Count			1	2
	○ Done with Project			1	1
[-]	○ Research Topic Motivation			0	0
	⊕ ○ Choice in Research Topic			1	3
	⊕ ○ Interested in or Passionate about Research Topic			7	15
	○ Relevant to Life			3	3

Figure 9: NVivo Code Book

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