Extension, Engagement, and Agency: Canvas as a Network for the Writing Classroom

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(English and Education)
in the University of Michigan
2022

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Dedication

This dissertation is dedicated to my grandmother, Connie Smith, who always encouraged me to keep going, in spite of all the challenges I faced, until her passing in October 2021. My daily phone conversations with her sustained me and helped me get through my research and writing during this tumultuous era, and I miss being able to call her to tell her about my day—even the dry, mundane details—which she always managed to make feel so much more important.

Acknowledgements

I am so grateful for the support of my family and friends, without whom I would have never made it to the finish line. Dad, Jenn, Jeremey, Riley, and Olivia, thank you for your unwavering support throughout these years and for giving me a reason to continue on. I am also grateful for the time I got to spend with you all while I was writing this dissertation, and it has made all the difference. Shamai, Bryan, and Kelby, thank you, too, for your support, and for reminding me to take breaks and practice self-care throughout this process. Aunt Kathy and Uncle Rick, thank you for giving me a home to begin my college career so many years ago; I will never forget your kindness. Grandma Connie, thank you for being pillar of support during the most challenging moments of this process; I am sorry that you are not here to see me cross the finish line, but I know you are watching over me. Mom, I cannot believe it has been so many years since your passing, and I think about you all the time. Your support and belief in me have never once failed.

I am also grateful for the support, patience, and understanding of my doctoral committee throughout this process: my chair, Remi Yergeau, who always encouraged me to keep going, commiserated with me during moments in which I could not, and reminded me of the value of my work when I doubted myself; Anne Ruggles Gere, who has been an advocate for me since I first arrived in the program, and has helped to illuminate the moments in my writing that I did not see myself; David Gold, who has helped me become better at articulating my research interests, and for giving me the opportunity to collaborate on an article, which has also improved my writing and research in immeasurable ways; and Anne Curzan, who mentored me throughout

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Abstract

Using the Canvas LMS at a large, Midwestern public institution, I wrote this dissertation seeking to understand how writing instructors' design and organizational decisions in the Canvas LMS affect the ways in which their students write and learn. Learning management systems, or LMSs, have long been fixtures of K-12 and postsecondary education, and in part due to recent interest in online learning amid the COVID-19 pandemic, opportunities abound to study these spaces to better understand the relationship between instructor pedagogy and student learning. Many scholars have rightly explored attitudes toward LMSs from both instructor perspectives (e.g., Salisbury, 2018) and student perspectives (e.g., Chou et al., 2010), but at the time of this study, scholars have not addressed specific practices that students and instructors enact through LMSs. And while writing studies and digital studies have taken up other types of online spaces as sites of inquiry pertaining to student literacies, the LMS remains an understudied artifact in this discussion. Further, while writing instructors often use LMSs to supplement their pedagogies, scholars in writing studies have not yet addressed the roles that these platforms might play in mediating writing instruction or students' writing processes. On this score, I found that Canvas might be hosting tensions between what writing instructors intend when they build their course sites and what their students are *actually* doing in response.

Using a conceptual framework of networks (Eyman, 2015; Chun, 2016), this study reveals how LMSs such as Canvas can function as extensions of F2F classrooms and provides new ways of rethinking modes of student engagement. I interviewed three writing instructors and eight students while embedding myself in their course sites under the Observer role; I

investigated how writing instructors built their course sites, how students navigated them, and how Canvas mediated writing instruction and student engagement. For writing instructors, Canvas served as an extension of their classroom spaces and pedagogical practices, and often reflected pedagogical and personal values in ways that they perhaps did not perceive otherwise. Students responded to Canvas through various modes of engagement, including skimming, creating touchpoints for their writing, and resisting, suggesting that students can find ways of navigating LMSs in spite of a course site's design. This dissertation sets a foundation for exploring the tensions that exist in and between networks and agents, as well as between teaching, learning, and LMSs.

Foreword: Acknowledging the Moment

I want to acknowledge the moment in which I am writing this dissertation: a time in which our world has been thrown into chaos by the COVID-19 pandemic and continued injustice in our nation and throughout the world. A time in which educators and students have been grappling with shifts between face-to-face and online learning (often repeatedly) while facing risks to their health and uncertainties about their futures. A time in which people of color have been murdered, voting rights systematically suppressed, and an insurrection met with denial, division, and a complete enervation of justice. A time in which the vaccine developments and efforts to slow the pandemic by our scientific and medical communities have been spat upon by those who refuse to take simple steps to mitigate the risk for those around them, and worse still, by those who propagate false narratives about the vaccine and downplay the dangers of COVID-19. A time in which this dissertation could have—*should* have—followed a timelier, more typical path, but did not.

I collected my research for this dissertation in what people have aptly called the "before times," when instructors and students were in person on campus and discussions of online learning were few and far between. At the beginning of the pandemic, when my fellow instructors had to suddenly move their teaching online, I felt a profound disconnection from the teaching community, and, therefore, from my research. I was not teaching at this time, and so I struggled to find ways of supporting and being there for my colleagues, many of whom were journeying into a strange new world. As a writing instructor with a background in online pedagogy, I was eager to share my knowledge with others, yet I was worried that this eagerness

was better suited for a far less precarious occasion. And although my approach to learning

management systems is always informed by online pedagogy, I could not have predicted their

sudden thrust into the spotlight, nor could I have anticipated the difficulties of putting research

that occurred in a face-to-face context into conversation with the realities of the current moment.

Had I known that learning management systems and online learning would become so vital, I

might have thought about this research differently.

My research process has also been punctuated by moments of uncertainty, anxiety, and

anger, as I am sure it has been for others. On some days, I would casually glance at something on

television or on social media and see another murder, another unsubstantiated comment about

"election fraud," another piece of legislation to ban social justice in education, or another push

against masks and vaccines. On other days, I would hear from family members and friends who

had been exposed to COVID-19, or, worse still, infected with it. On these particular days, I felt

fortunate just to write one sentence or to open my research files and acknowledge their existence.

This, of course, fed into a rapidly growing self-doubt. How could I complete a dissertation when

I did not know what tomorrow would be like? How could I work and do research when there

were so many horrible things happening in the world? How could I possibly write about Canvas

when there were so many other pressing needs? There are other countless stories and personal

tragedies from the past two years that have also tinted this research experience, and so, too often,

it was easier to expend my energy on other projects and engage in self-care rather than work on

this dissertation.

In spite of all this, I also want to acknowledge the glimmers of light and hope that have

helped to push this dissertation forward. I was able to spend time with my family and friends

during the first year of the pandemic, which allowed me some days to focus on data analysis and

writing. I was able to facilitate a number of asynchronous workshops about teaching with technology, which allowed me to remain tethered to conversations about best practices for using Canvas. I was able to learn from my fellow instructors about the many ways in which they were approaching online learning with Canvas, which helped me reflect differently on my dissertation research. I was able to write a manifesto with brilliant colleagues about investing in communities of care during and after the pandemic, which helped me reconsider my intentions and goals with technologies such as Canvas. And, in returning to teaching at last, I experienced a fundamental shift in thinking about the role of Canvas and other learning management systems as tools in these communities of care: Canvas has become a space for me to help students be successful during uncertain times, and, when necessary, to help us keep one another safe.

Readers might ask themselves why I begin here, and that is a fair question. The simplest answer is that the events of the past two years—the good, the bad, and the ugly—have left an indelible mark on this dissertation, and so it is necessary to attend to this reality before moving forward. The more complicated answer is that in the social sciences, we often speak of the positionality of the researcher and what makes them a worthy observer, but we do not speak as often about the conditions in which they write and work. It matters that the world is on fire. It matters that cries for justice and equity go unanswered. It matters that public health is not a priority for many people. It matters that the pandemic and social injustices have stolen time, lives, and happiness from people. It matters that priorities have shifted, and that we cannot—and, in some cases, *should not*—return to the way things were before. While these conditions are not explicitly part of the dissertation, they have been at work in the background, rendering the research and writing processes inert at the worst of times, and recalibrating and refining its purpose in the best of times. This is, hopefully, a cross-section of the latter.

Chapter 1: The Curious Case of Canvas

Not many people know this about me, but I was homeschooled during my high school years in rural Alaska. It was around this time that my family and I started using computers, back when the internet was still a luxury for many families and our web and telephone use were often at odds with one another thanks to the dial-up modem. In my senior year, my school—a correspondence school based out of Juneau, began a transition from mailing schoolwork to using a learning management system (hereafter referred to as LMS) called Blackboard. I did not know it at the time, but this transition planted a seed that would sprout into a lifelong fascination with online learning platforms. As an undergraduate student, I was casually interested in the interactive tools of my instructors' course shells, and when I became a graduate student instructor, this interest evolved into experimental designs and productive failures—all of which inform my critical inquiries about these spaces' roles in teaching and learning today. Looking back, I wonder how different my research interests would be had I not been introduced to Blackboard in high school, or, indeed, had I not been homeschooled in the first place.

When I first entered college (which, ironically, used the same platform), my interest in LMSs was, shall we say, a slow burn. Most of my instructors at the time were not using Blackboard for much outside of recording grades and storing texts. This should not be surprising, because, as Beth L. Hewett (2017) notes, "The use of computers and learning management systems (the software that contains the course) for teaching and writing was somewhat experimental in the 1980s" (p. 356), and we have only observed its proliferation in the recent years. It might also be worth noting that I was unaware that I had a student email account until

my second year of college, so it was likely that Blackboard was similarly at the lower end of my concerns during that time. However, I recall that over time more instructors began requiring students to submit more work via Blackboard and to participate in some of the more interactive elements of the platform, such as discussion boards and wikis. When I started my master's program as a graduate writing instructor, my interest in these elements began to flourish; as part of our teaching training, my colleagues and I learned how to design and organize a course shell on Blackboard. I also took a course in online pedagogy, in which I designed a full online writing course that I taught the following semester. I recall spending hours changing and reorganizing materials in my course shell, vacillating upon colors and fonts, and fussing over the banner image at the top. Blackboard became the touchstone for all of my teaching, and I never questioned its impact on student learning until I entered my PhD program a few years later.

When I began my PhD program, I was thrust into a vastly different LMS: Canvas. I initially had mixed reactions; part of me was impressed by the much simpler interface, yet another part of me pined for the customization that Blackboard afforded. During my first semester, I took a disability studies course and immediately became interested in online accessibility, which usefully challenged the way I viewed the simplicity of Canvas. From that point on, I started reflecting back on my experiences using Blackboard and considering how my decisions impacted the way in which students interacted with it. And, as I became more familiar with Canvas, I started thinking more intentionally about the kinds and amounts of tools I would use in my course sites (as well as the tools I would *not* use). I began asking more critical questions about the role of Canvas in my students' lives: How does Canvas package and promote accessibility for students? What kinds of assumptions does Instructure (the developer of Canvas)

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make about the kinds of tools instructors and students use in their course sites? How does Canvas mediate teaching and learning?

I also developed a new lens for examining Canvas in my capacity as a graduate consultant for fellow instructors. Having developed (and co-developed) several synchronous and asynchronous professional development workshops for fellow graduate student instructors and faculty members via Canvas, I learned about how to better anticipate participants' expectations for time, as well as their capacities for engaging with my course sites—and each other. And as the COVID-19 pandemic spread throughout the world, pushing many instructors abruptly into online teaching, I became even more concerned about the time and energy that participants could give for my workshops. In mapping my consultant experiences back onto my writing instruction experience, I confronted some more questions: What are instructors' expectations for how (and how much) their students and other participants use Canvas? How do students and participants perceive the usefulness of the tools and the ways in which their instructors use those tools in Canvas course sites? These questions and concerns—past, present, and ongoing—eddied into an interest in how writing instructors' design and organization decisions in Canvas affect the ways in which their students write and learn—the central inquiry of this dissertation.

Roadmap of This Chapter

The purpose of this chapter is to build the narrative and theoretical foundations for this study. As I discuss at length in the next chapter, my methods and approaches to investigating Canvas have shifted over time from qualitative coding (which was useful for distilling my interview data into themes, a few of which are still present in my analyses) to a rhetorical analysis that probes my participants' intentions, motivations, and rationales for using, not using,

or subverting Canvas. Thus, it is important to introduce here the context, research questions, and theoretical underpinnings at stake in this dissertation. First, I provide an overview of Canvas by introducing its history and place in higher education, as well as some of the rhetorical and definitional stakes that I take in writing about this online learning space. Next, I describe the ways in which I enter this study, not only as a researcher, but also as a writing instructor and teaching consultant—the latter of which has helped me understand the role of Canvas in professionalizing faculty and student instructors. Then, I explain my research questions and their stakes for writing instruction and writing program administration. Finally, I introduce the theoretical strands around network theory that bind this dissertation together and provide different lenses through which to understand the roles of writing instructors, students, and Canvas itself in a broader writing and learning experience. This chapter ends with an overview of the upcoming chapters.

Overview of Canvas and LMSs

In writing this dissertation, my assumption is that my readership will bring vastly different experiences and interests in Canvas and other LMSs. Some readers will likely find the tools and narratives I share in my findings chapters to be familiar, while others may find themselves standing upon new terrain. Others still may be utterly resistant to the idea of using LMSs as part of their pedagogies. Regardless of where readers find themselves here, it is important to offer some preliminary context about Canvas and about my own approaches to LMSs writ large. As I mentioned earlier, Instructure is the developer for Canvas; Instructure is a learning platform developer based out of Utah. Instructure launched Canvas in 2011, a year after it became the official LMS for K-12 and postsecondary education in its home state ("Our

Story"). Instructure advertises Canvas as a learning management system not only through its analytics and interactive functions but also through its collaboration tools (e.g., Google Docs) and cloud-based features ("Canvas LMS"). While Blackboard has been the top platform for many years after its launch in the 1990s, Canvas is overtaking its competitor, owing to its simplicity and flexibility (Etherington, 2018)—and, as of 2019, Canvas has over 30 million users worldwide ("Our Story"). My institution, a large Midwestern public university, launched Canvas in the fall of 2016 as a replacement for CTools, a learning platform designed and personalized through Sakai, another developer for online learning platforms. As my institution's support page for Canvas suggests, "All instructors are encouraged to use the Canvas site for, at minimum, posting your syllabus and making course announcements" ("Canvas Help and Support"). Since I entered this institution, I can confirm that, apart from one professor, all my instructors have used Canvas for at least these purposes.

Readers should note that I am intentional in my use of the phrase *learning management system* as opposed to *course management system* (or CMS). Scholars who write about these spaces do not appear as concerned about this distinction (or, perhaps, use one or the other out of habit), and, indeed, a cursory glance at the current literature would suggest that these terms are fairly interchangeable. Even more complicating is that discussions around differences between these terms tend to be centered in popular journals and university-sponsored web spaces on educational technology rather than in peer-reviewed research. Watson and Watson (2007) are two of the first scholars attempting to clarify these terms, arguing that LMSs are more systemic in nature and address all elements of learning, including establishing goals and tracking student progress (p. 28). CMSs, Watson and Watson contend, possess many similar features but are primarily concerned with storing materials and facilitating course communications (p. 29). While

these differences likely mattered at the time Watson and Watson were writing about them, many online learning platforms have evolved to take on functions of LMSs; even Blackboard, which Watson and Watson argue is a course management system in 2007, is more fully equipped these days to support student learning analytics and tool integration. Yet, Watson and Watson's focus on the systemic nature of LMSs is one that resonates for this dissertation. And, as Vanderbilt University's Center for Teaching notes, there presently appears to be a preference for the phrase *learning management system* (Coble, 2016), and, perhaps not surprisingly, this is the way that most of these platforms advertise themselves.

Readers should also note that, when it comes to Canvas, I use the term *course site* to talk about the individual spaces for storing and deploying class materials on the platform. When referring to Blackboard, I refer to these spaces as *course shells*. It is only recently that I have investigated the difference between these terms; previously, I referred to these platforms' spaces in these ways because that is how I was taught to do so. However, as Rodrigo, Parker, and Mitchum (2019) argued in their presentation at *Computers & Writing*, these terms can communicate different purposes. Functionally speaking, there is no real difference between these terms as they serve generally the same purpose for students and instructors: a central hub for whatever class materials the instructor has placed there. Rhetorically speaking, however, these terms imply slightly different things; whereas Blackboard's *course shells* imply something to be filled, Canvas's *course sites* imply something to be built upon, and, perhaps in the spirit of archaeology, something to be studied. These distinctions matter in the argument for the phrase *learning management systems*. Course shells can evoke images of repositories—places to store items such as texts—while course sites evoke something more capacious, and in managing learning, a place to do things rather than simply store things.

In much of the literature on LMSs, student and faculty perceptions appear to be the most dominant themes. And, as mentioned earlier, many of these scholars are concerned with online learning. Chou et al.'s (2010) study, for example, examines interactivity features in LMSs at Taiwanese postsecondary institutions. Chou et al. found that students were most familiar with features that facilitated assignments, and they generally preferred features that helped them track their progress in their courses (e.g., grades and upload tracking). They found that, while many tools were available and useful for online learning, students were generally unaware of them or how to use them effectively. De Smet et al.'s (2012) study examines the differences between instructional and communication uses for LMSs at secondary schools in Belgium. De Smet et al. found that instructors' perceptions about the ease of use tended to indicate the degree of willingness to adopt an LMS. They also found that the availability of on-site support (e.g., IT services) had an impact on adoption.

Other scholars look at student performance and identity to understand the impact of LMSs. Li et al.'s (2015) study examines learning equity for LMSs in terms of gender and race at a Midwestern university. Li et al. found that disparities exist in how students use LMSs based on gender and race, and, without intervention that accounts for different technological needs, these disparities may become amplified. And while LMS use does have a relationship to student achievement, Li et al. suggest instead that institutions should attend to the inequity inherent in technology use. Han and Shin's (2016) study considers the correlation between mobile LMSs and student achievement at a university in South Korea. Using perception data and students' test scores, Han and Shin found that the mobile LMS had a marginally positive impact on students' performance and that factors such as gender and age impacted the likelihood of students using the mobile LMS (with male and younger students tending to use it more). Hussain et al.'s (2018)

study looked at student engagement and motivation in e-learning environments (of which LMSs are a part). Using machine learning algorithms, Hussain et al. measure variables of student success (e.g., results and scores) against variables of student engagement for activities (e.g., using a homepage or subpages). Although a host of factors, including instructors' design decisions, factor into how much a student will engage, Hussain et al.'s results suggest that the number of clicks on features such as the homepage or the forum may help to predict high- or low-engagement students.

Some scholars point to an exigence for examining student and instructor perceptions of use and usefulness in LMSs, which may help to explain how differently students and writing instructors see engagement in Canvas. For example, Chou et al.'s (2010) study examines students' perceptions of interactivity in LMSs, finding that students valued interactive elements that helped them to monitor their own learning progress. Interactivity and students' perceptions thereof are both important components of this dissertation, and I seek to build upon Chou et al.'s study by directly observing and speaking with students about how they engage with their instructors' designs in Canvas. Also, in terms of usefulness, Wang et al.'s (2013) study considers the role of reconfigurability, which they note is an understudied topic, as a way for instructors to apply the seven principles of effective teaching (e.g., Chickering & Gamson, 1987). Wang et. al's study is focused on improving the literacy of one agent in the technology—namely, instructor designers—but in this dissertation, I am also interested in how we might improve LMSs more broadly by attending to instructors' and students' perceptions of engagement.

Other scholars recognize the complications and expectations that instructors and students face in using LMSs. Frantzen's (2014) study examines the differences in technological integration in face-to-face, online, and hybrid courses. Frantzen argues that because so many

technologies are available, faculty are now faced with integrating them to maximize their students' success (p. 566), which raises questions not only about the reasons why instructors might choose particular tools over others in a course site but also about some of the worries that they might have in doing so (based on factors such as experience with the technology). Further complicating is the expectation that "Web 2.0" brings to learning environments. As Soumplis et al. (2011) suggest, the advent of Web 2.0 brings with it an expectation that students and instructors will interact with one another and create learning networks. Soumplis et al. note that in these spaces, students engage with one another and with other stakeholders (e.g., instructors) and actively shape the learning space (p. 5). As my own and other instructors' experiences have indicated, however, this is not always the case, and so this dissertation invites experiences that may be different despite the vast array of technologies and the affordances of "Web 2.0."

Over time, LMSs such as Canvas have become ubiquitous learning platforms in K-12 and postsecondary education (Chou et al., 2010; Salisbury, 2018; see also Smith Jaggars & Xu, 2015), though many other scholars are arguably more critical about its role, and, indeed, the role of other technologies, in students' learning experiences. Such criticism raises questions not only about the degree to which technologies (such as Canvas) make assumptions about student learning but also how instructors *use* technologies to build student learning in Canvas—an action contingent upon its own set of assumptions. For example, as students divide their digital engagement into personal and academic contexts (e.g., Neier & Zayer, 2015; Naumann & Goldhammer, 2017; Aillerie & McNicol, 2018), the tools that instructors deploy in Canvas may stem from a technological determinism (e.g., Neal, 2011) that assumes that these tools will be useful in fulfilling their students' learning goals. Worse still, some scholars rightly express concern about technology use in the classroom and the myth of digital nativism (e.g., Sandberg,

2011; Thompson, 2013), which assumes that their students are adept at using such tools simply because they are part of a generation inundated with technology. Digital nativism, a phrase originally coined by Marc Prensky (2001), is a belief that students—particularly young people of the last 20 or so years—are adept at using technology because their generation is part of the so-called digital age. For example, writing instructors might leverage social media (something students are likely to use outside of class) in pursuit of a learning objective, though some students might not understand its use in class. Other scholars question the relationship between technology and student learning in the first place. For example, as Naveh et al.'s (2015) study suggests, computer literacy has no bearing on student satisfaction with a course (p. 132), which may point to ways in which students are engaging in Canvas in spite of what writing instructors may design and deploy, or in spite potential context collapse.

About the Study

This dissertation follows three graduate student writing instructors and their students as they used Canvas during the 2019 fall semester at a large, Midwestern public university. Using data from audio-recorded interviews, screencasts, and embedded observations of course sites, I investigated these participants' uses of Canvas through a conceptual lens of the network (e.g., Eyman, 2015; Chun, 2016). I used a combination of qualitative coding methods and rhetorical analysis via network theory to distill my data into two major themes: (1) how writing instructors use Canvas as an extension of their classrooms, and (2) how students respond at the edges of this extension. Through this investigation, I invite further discussion about how writing instructors might better anticipate their students' needs in LMSs, as well as how we can make platforms like Canvas—whose presence will only increase due to the shift created by the COVID-19

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pandemic—more useful for writing and learning all around. I want to emphasize that while this dissertation focuses intentionally on writing pedagogy (and on an in-person context), the implications that follow from this study have import for a range of instructors, writing program administrators, and faculty support specialists, many of whom may be reconsidering the role of LMSs as they look upon the ever-shifting terrain of the future.

As a writing instructor and digital scholar, I recognize that others may not be as invested in LMSs as I am, and I also recognize that many of my fellow instructors are likely exhausted by the inundation of new information and suggested practices for using LMSs as they continue to navigate the challenges of the pandemic. After all, before the pandemic, LMSs such as Canvas were regarded as mundane tools designed to aid in the delivery of pedagogical content and to track student progress when necessary—not touchstones of community and survival that they have become as of late. LMSs are also institutional and corporate fixtures in K-12 and postsecondary education, and many instructors are wary and critical of their presence in classrooms to begin with. But I would like to steer this conversation to a more productive space for writing instructors and scholars by looking to what LMSs can teach us about how writing instructors leverage their pedagogies, how their students learn about writing in digital contexts, and, broadly speaking, how LMSs might play a role beyond the COVID-19 pandemic.

As a scholar of online learning, I am also interested in how writing instructors demonstrate their engagement and presence in a course site through clicking, reading, and composing (e.g., discussion board posts, assignments, wikis). Writing instructors, for example, might demonstrate their value of classroom community (a feature I discuss in Chapter 3) by clarifying assignment instructions in the form of an announcement, while students might demonstrate their engagement through uploading assignments or participating in discussion

boards. As I preview at the end of this chapter, it is equally important to consider the external factors at play. For example, if writing instructors do not post written instructions in a course site, they may communicate these instructions verbally or through an analog mode of writing (e.g., a syllabus). In other words, what instructors and their students do outside of Canvas is perhaps just as important as what they are doing inside of it.

As a former consultant for instructors who has investigated the use of technology in the classroom, I also am interested in Canvas because of how pervasive it and other LMSs have become in classrooms— regardless of the degree to which instructors and students use them. Many scholars attend to these platforms as they pertain to online courses; yet some of the elements that go into designing a course site hold true for many face-to-face classes, and so the current scholarship points to opportunities to support faculty in making informed decisions about if, when, and how to use these platforms to augment student learning. I posit that because of the proliferation of LMSs such as Canvas—and especially in light of the pandemic—most courses are already *partially hybrid*; that is to say, even if instructors in face-to-face classrooms use a course site only as a repository for grades and readings, and even if students only access a course site to see what their grades are, the course site is still a vital component of the classroom. And it is in this partial hybridity that we must also attend to how these spaces afford or constrain student engagement (and the ways in which writing instructors conceptualize this engagement) on its own terms. If course sites are extensions of writing instructors' pedagogies and nodes of students' writing processes, then it is also important to consider how hybridity might well be playing a role on both ends.

In choosing first-year composition as my domain of study, I am considering the tensions at work between writing instructors' designs in Canvas and how students engage with these

designs through their writing and learning. But more specifically, I am thinking specifically about how these things help us understand the pathways that writing instructors take to enhance their pedagogies and students take to learn about writing, including the kinds of digital scaffolding (e.g., Modules, bullet points in Announcements) that are aligned with analog scaffolding (e.g., syllabus, handouts)—or operate independently of it. First-year composition, particularly with a particular focus on multimodal composition undertaken by the writing program at this institution, is a fruitful place to examine the work that writing instructors and their students are doing with Canvas. Much of the way in which I have designed my own course sites has been through writing pedagogy, and much of how I have seen students engage has been through writing (e.g., their interaction in discussion boards and in collaborative documents). But this study is not limited to just writing instructors. I recognize the value and efforts that instructors in other fields and disciplines (many of which have a writing focus) bring to their course sites in Canvas. I recognize that instructors in education, for example, may be using their Canvas course sites in unique and creative ways that help students learn to be better educators (and perhaps see Canvas's role in that endeavor). I also recognize that instructors in STEM fields may be using Canvas in ways that I have not even pondered before, such as wikis to compose lab reports. And so this work, I argue, shows possibilities for how writing instructors might keep their students tethered to their courses beyond the physical classroom space and how students voices and preferences can go toward strengthening their LMS experience.

I should also say a bit about the instructor participants in my dissertation: graduate student instructors. Although the three instructors who came to be part of this study did so in part by means of convenience sampling, their experience is one that I am deeply familiar with, having been a graduate student instructor at two institutions myself. And although it would be

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fascinating to include the experiences of contingent faculty (an experience I have also had), term lecturers, and tenure-track faculty in first-year composition, graduate student instructors are uniquely positioned to think through questions of organization and design in LMSs such as Canvas because many of them are just learning to use LMSs. And, as most first-year composition courses are taught by graduate students at this institution, graduate students arguably possess "on the ground" perspectives that see teaching with new(er) eyes than their term and tenure-track counterparts. However, I do not intend to alienate term lecturers and faculty by focusing only on graduate student instructors; rather, I invite all stakeholders, including writing program administrators, into this discussion to think about how using LMSs such as Canvas (or not) can be better positioned in instructor training, as well as to think more intentionally about how the technology we use can better serve our students' writing and learning.

Research Questions

While many scholars have researched LMSs, the relationships between LMSs, writing, and engagement remains understudied in writing studies and digital rhetoric. Lauren Salisbury's (2018) study of the relationship between writing instructors' teaching styles and their use of LMSs begins to close this gap by interrogating how writing instructors bring their face-to-face pedagogies into this space, as well as how they think about their students' experiences in the process. Salisbury finds that writing instructors do not feel that course management systems enhance their pedagogies, nor do they feel that they enhance their students' learning; but as

Salisbury suggests, these findings do more to illuminate the trepidation that writing instructors have in using course management systems than they do the relationships between instructors' course sites, pedagogies, and students' learning. Like Salisbury, I am interested in the pedagogical practices that writing instructors bring into a course management system such as Canvas, but I am also interested in how students engage with those practices through their writing (that is, the time and energy students put into Canvas, as well as how they conceptualize this time and energy). And while Salisbury's work is useful in understanding writing instructors' perspectives, I wanted to explore a more direct relationship to writing. In some ways, my dissertation builds upon Salisbury's study by not only offering the students' perspectives but also how the relationship between instructor design and student engagement is evidenced through writing. I developed the following research questions as guides for unpacking the complexities of this project as I learned more about the relationships between my participants and Canvas, their networked experiences, and their pedagogical and learning practices.

My first research question asks, *How do students engage with specific features in Canvas (e.g., discussion boards, wikis, peer review, collaborative documents) to learn about writing?* To this end, I wanted to investigate how students are themselves making use of them in terms of how much they write and how much time they spend writing. I was also interested in how students are conceptualizing their learning about writing by using these features. Outside of course site analytics, which offer one side of the story (and a limited one, at that), writing is one of the other ways in which scholars might observe student engagement. For example, if writing instructors ask students to contribute their thoughts about a reading or rhetorical concept on a discussion board or a collaborative document (e.g., Google Docs), students will do so through writing. Therefore, by interrogating the writing that students do and their perceptions of this

writing, I wanted to learn more about how students engage with their writing instructors' pedagogies, as well as how their writing processes may be different from those of their writing instructors. Writing program administrators might be interested in this question because writing outcomes are key components in helping students become more successful writers. Understanding how students achieve these outcomes by engaging through Canvas may show the field of writing studies how to better leverage LMSs to improve these outcomes for students.

My second research question asks, *What specific features of Canvas do writing instructors use to enhance student learning, and what are the personal and pedagogical reasons for doing so?* I became interested in this question because, like Salisbury, I felt that a connection exists between writing instructors' pedagogies and the way they use LMSs, even if writing instructors did not perceive this relationship in the same way. I also felt that a number of personal factors could be at play in writing instructors' designs; that is, I argue that instructors bring dispositions and habits into their course sites (e.g., Bordieu, 1986; See also boyd, 2010) that may be cultivated in part by their learning goals and objectives, as well as their personal preferences. Scholars in writing studies might also be interested in this question because it keys in on the tools in course sites that writing instructors want their students to use to learn or practice writing (e.g., discussion boards, collaborative documents), as well as how these tools serve writing instructors' goals and visions for the course. Furthermore, writing program administrators looking to improve teaching practices with LMSs might be interested in knowing more about how writing teachers' approaches are enhanced, diminished, or retranslated by course management systems such as Canvas. This question may also lend itself to best practices and considerations for designing writing curriculum and assignments through Canvas.

My third research question asks, *How might Canvas itself mediate writing instructors'*
pedagogies and students' writing? This question was important because I wanted to understand
what kind of agency Canvas had—the ways in which it could determine, constrain, or even
confuse how instructors and their students would use it. On one hand, I wanted to know not only
the degree to which Canvas may be supplementing, extending, or replacing writing instructors'
pedagogies but also how Canvas itself is telling students how they should engage with their
writing. For example, if a writing instructor intends for a wiki to be used like Wikipedia but
students are composing in an unintended or unexpected way based on the features in this space,
it may indicate a moment in which Canvas is creating disjuncture. On the other hand, I wanted to
learn how Canvas may be representing students' writing in response to their instructors'
pedagogies. Students using discussion boards, for instance, may be writing in them according to
how they feel discussion boards should operate (e.g., responding to the instructors' post rather
than writing their own), which represents a potential constraint that Canvas is imposing through
its template. Looking at Canvas in this way may show writing program administrators how
LMSs might be used in aligning writing instructors' learning goals with outcomes. But more
importantly, thinking about Canvas as the intermediary between instructor design and student
engagement may have broader implications for how LMSs may represent differently or
retranslate what writing instructors and their students are trying to (or think that they will)
accomplish This question may also open some space for thinking about how to incorporate and
maintain Canvas as a learning space for writing, and indeed, whether it is useful to do so.

Toward a Theory of Network

At the heart of this dissertation, and, indeed, the heart of my thinking about Canvas for the last few years is the idea of *network*—certainly not a new idea where digital and writing scholars are concerned, but one that has proven generative in thinking about how writing instructors and their students interact with online learning spaces such as Canvas. But what do I mean by network? Simply put, a network is a means of visualizing how different agents, tools, values, and other ideological and discursive elements are connected to one another. Although many readers may conceptualize a network as a digital construct put together by hyperlinks, algorithms, and user interactivity, I argue that a network accounts for analog experiences, as well. A writing classroom, for example, might be characterized as a network of students, instructors, and tools used for learning how to write; one might argue that writing instructors and their students are directly connected to one another, but one might also argue that these agents are connected to each other *by way of* tools used for learning how to write. Adding Canvas into the mix may make the network more complex, but the concept is relatively the same: students and their instructors are connected to one another *by way of* the tools and spaces instructors ask their students to use in Canvas.

The networked experience that I perceive for the purposes of this dissertation stems from a synthesis of Doug Eyman's (2015) framework of digital rhetoric and Wendy Hui Kyong Chun's (2016) theories of habit and mapping to consider how LMSs function as digital spaces. I use Eyman and Chun's work to distill the following framework: a process by which students (and even instructors) navigate one or more networks of information, tools, and resources along nodes and links. We might imagine navigation as the movement or choices that students make when using Canvas, and that the nodes and links are the pathways and location by which students navigate Canvas. Network, nodes and links, and navigation often intersect, overlap, and

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complicate one another. For example, one might contend that a student's experience constitutes a network on its own, but students also navigate various other networks: technology, classrooms, or other aspects of their experience. Canvas is one network which they must navigate, and it interacts with other networks (e.g., the writing classroom, course materials) in significant ways. Thus, the network is not only useful for understanding how Canvas functions as a digital space and as part of a network with more analog constituencies; it is also simple enough to apply to other aspects of the writing, including how writing instructors build different aspects of their pedagogies into a course site and how students then incorporate those aspects into their writing processes.

While Chun and Eyman are not themselves concerned with LMSs, their frameworks are nonetheless useful for defining and developing categories for how teaching and learning can function through extension in Canvas. Eyman's discussion of digital text in particular attends to the relationship between digital literacy and digital rhetoric. To this end, one of Eyman's key claims is that "[d]igital literacy is a requirement of digital rhetoric" (p. 45). Eyman's claim opens up space for recasting LMSs as (part of) networks because he acknowledges that users must "interact with a myriad of sign systems" (such as the nodes and links that make of the network) both critically and functionally (see also DeVoss, Cushman, & Grable, 2005). Chun's work is useful in understanding LMSs because it suggests a connective, if not cybernetic tissue between readers and digital spaces; that is, through habit, humans are not only connected to one another but also to "non-humans and the environment" (p. 7). Although Chun's notion of habit is more concerned with the dichotomy of publicness versus privacy, it does offer insight into how writing pedagogy and student learning might usefully be mapped onto Canvas (and, perhaps, vice versa).

The networked experience of Canvas, then, offers a view of how users interact with LMSs and, indeed, how Canvas interacts with users—hence, the cybernetic connection.

As I show in Chapters 3 and 4, however, networks are not necessarily as static or stable as my operational definition implies. Both writing instructors and their students interact with the network in a variety of ways, which helps to build the boundaries, contours, and movements within the network. For example, as I discuss in Chapter 3, writing instructors act upon the network by using Canvas as an extension of their classrooms. That is to say, writing instructors create representations within Canvas of the kinds of values and writing pedagogies that they value, which acts as a means of keeping students tethered to what is happening in the physical classroom space. As I demonstrate in Chapter 4, students respond to what their instructors build into the network by engaging with Canvas in a variety of ways; for example, when students engage with Canvas in ways that their instructors expect, they are acting upon the network in one way, and when students do something completely unexpected, they act upon the network in another way—revealing new nodes and links previously unseen. Figure 1.1 provides a visual metaphor of how writing instructors, students, and Canvas are linked together in a network, as well as how writing instructors and students act upon the network in different ways. For example, instructors might use Discussions to make students' learning more social, which students might then engage with through resistance (e.g., expressing nervousness, posting without reading others' posts).
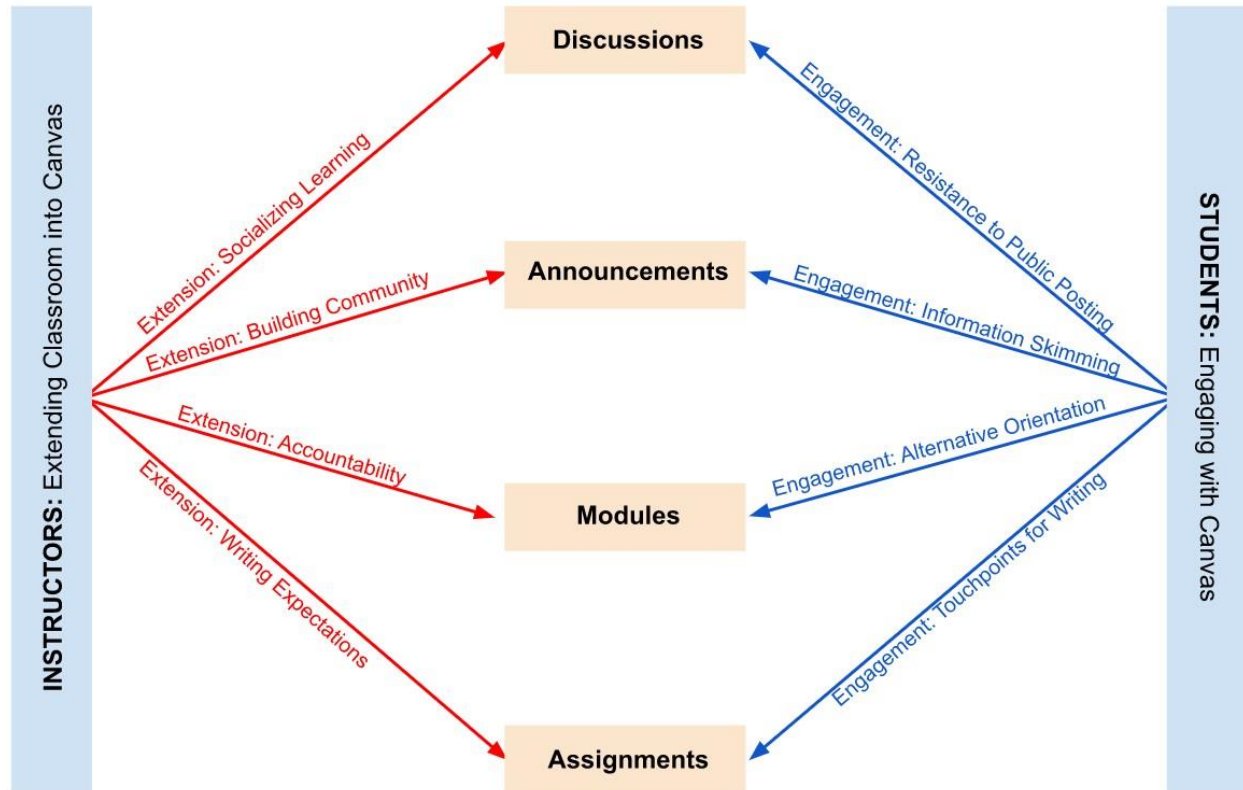
Figure 1.1: A representation of network that shows instructors on one side and students on the other. The red arrows leading from the instructors show how they extend their classrooms using various tools in Canvas (in the middle). The blue arrows leading from the students show how they engage with these tools from their end.

One of the main thrusts of this dissertation is that writing instructors build a network for writing in LMSs such as Canvas; they build tools, writing assignments, communications, and resources into a course site. Students, then, access this network by navigating these items as part of their writing processes. One of the other thrusts of this dissertation, however, is that Canvas also comprises a part of students' writing process networks, which may also include external websites, writing and tools, analog resources (e.g., handouts in classrooms), and even the physical classroom itself. Put another way, writing instructors create networks through Canvas for their students' writing, but Canvas only comprises one component of students' larger network of writing, much of which is created by the instructor. The same is arguably true for writing instructors. Canvas is not the only part of writing instructors' pedagogical networks; writing

instructors also depend on other resources (and, perhaps, other web spaces) to build their course sites. As I mentioned earlier, the elements external to Canvas are just as important as what happens inside of Canvas, and so readers should assume that the networks I write about are messier and far more expansive than the scope of this dissertation—and, most importantly, not mutually exclusive when it comes to writing instructors and their students.

Chun and Eyman's works enter into conversation with theories offered by other digital scholars which similarly consider digital spaces, their parts, and users' movements between those parts. Networks allow scholars and instructors to see student writing in a new light, but more than that, it gets to the heart of how we think about infrastructure (DeVoss, Cushman, & Grable, 2005), whereby previously invisible elements such as ideology (p. 16) become foregrounded in students' digital reading experiences. Thinking about the infrastructure of the network also allows readers to holistically "conceptualize the relations between the parts" (Wysocki, 2001, p. 156), which in turn encourages readers to think about how the network influences how students and instructors use Canvas. This concept also allows scholars and readers to identify the ideological forces at work in using Canvas, especially forces which are invisible. On a visual scale, thinking about the Canvas experience as a network of images and icons also raises questions about distribution (Gries, 2013), whereby Canvas developers deploy "intentional strategies" to "disseminate an image, as well as the intra-actions between involved humans and non-humans" (p. 344). But in this context, I would reimagine images and icons as the pre-packaged branding and template that Canvas brings to bear on student writing and learning, all of which is visible in the course sites. These theories suggest a way of visualizing teaching and learning as a process and roadmap for interactivity between users and digital elements.

Another important framework for these observations, similar to the network analysis I have proposed, is *activity systems* (Spinuzzi, 1996; Russell, 1997) in the writing classroom, as popularized by Kain and Wardle (2005). Through the lens of writing, I see Canvas course sites as *object-oriented*, meaning that they have a specific goal (which, in this case, is the learning of writing); *tool-mediated* (which accounts for the various tools that writing instructors use); and dependent on *human interaction* (which evinces how teachers and students are working together toward learning goals in writing through Canvas). Looking to Canvas and the people who use it as part of an activity system enriches its analysis of it as a network by which instructors create (and maintain) an extension of their classrooms and by which students engage at the edges of this extension; that is, rather than just simply taking stock of where tools are positioned by the instructor and how students are writing in them (or using them to write elsewhere), activity theory allows us to contextualize the network further by interrogating the *relationships* among students, teachers, writing, and tools in Canvas.

Taken together, the frameworks of network analysis and activity systems provide us with language and lenses through which to better understand the relationship between technology, agents (e.g., writing instructors and students), and learning. They also helped me to understand how writing instructors build writing and learning into Canvas, such where they write instructions or post materials in the network of the course site. A network and activity theory approach, then, may enable digital scholars and writing instructors to better understand the rhetorical choices that writing instructors are making (or the choices of Canvas as a rhetorical technology) in selecting certain tools over others in Canvas, as well as the kinds of writing that students are producing with these tools and how they are conceptualizing this writing in response to these tools as useful to their learning.

Mapping Extension and Engagement in the Network

In this dissertation, I adopt two metaphors to account for how writing instructors and their students act upon the network in Canvas: extension and engagement. In Chapter 3, I found that writing instructors envision and enact their course sites as extensions of the classroom; in other words, I identified moments in Canvas course sites in which writing instructors echoed the pedagogical and personal values that they bring to bear in their physical classroom spaces, such as using Announcements to extend aspects of the classroom community or using Modules as an extension of accountability. Extension is apt for examining the network of Canvas because it provides context clues for how writing instructors teach, as well as idiosyncrasies particular to each instructor. Extension is also the most visible example of how agents can act upon the network. In Chapter 4, I learned that students engage with Canvas (and thereby their instructors' extensions) in a variety of ways—some surprising—and, more specifically, they find ways of engaging with the network that are useful for their own writing processes. While engagement has been taken up robustly in writing and higher education studies, the framework I propose here introduces a new way of thinking about Canvas as a site of response to pedagogical designs in digital learning spaces. In other words, by mapping extension and engagement onto a network, we can see not only how useful students find their instructors' materials but also how instructor communication is translated or broken down through Canvas. In the subsections that follow, I offer some theoretical grounding extension and engagement.

Extending the Network

One feature of the network pertains to how writing instructors extend their classroom spaces. As I argue in Chapter 3, extension is not a new idea, but it does offer some insight into how digital tools such as Canvas can supplement writing pedagogy; perhaps less understood are the specific mechanisms and criticalities that allow this kind of extension to work. Scholars such as Westera (2011) and So (2012) acknowledge directly the way that technologies and online learning extend the classroom and therefore students' ability to learn beyond the classroom context. As Westera notes, "New information and communication technologies like mobile devices, geopositioning services, ambient environments, and ubiquitous access literally extend the learner's physical range of operation by enabling augmented reality layers superimposed on existing contexts" (p. 203). So, similarly, remarks about the uptake of online learning in digital spaces, "[d]ue to its flexibility and ability to virtually extend the classroom with the aid of technology" (p. 318). Although Westera and So are chiefly concerned with how easily students can access their learning with a host of technologies, their statements around "ubiquitous access" and "flexibility," respectively, suggest a range of possibilities for how instructors can use technologies such as LMSs to enhance the reach of their pedagogies, connect students with materials that allow them to work independently of the classroom, and continue classroom conversations digitally.

Indeed, as Hill and Hannafin's (2001) study on resource-based learning in online spaces affirms, connecting learners with online resources make vital the role of the instructor in "facilitating access to and interpretation of [said] resources" (p. 40), suggesting that what students access in online spaces echoes or encapsulates the learning they already do in face-to-face (F2F) contexts. To contextualize this point in the writing classroom, online resources (e.g., PDFs or site pages that outline writing tips, announcements that review and clarify earlier

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lessons) create iterative experiences for students. Hill and Hannifin go on to note that "[i]n highly engineered approaches, the learner may be directed to resources in which particular knowledge, beliefs, or skills are explicitly contained" (p. 41). While the approaches that my instructor participants take in their course sites are variable, they do seek to impart specific kinds of knowledge, beliefs, or skills that are either repeated or expanded upon from what their students are learning in their physical classrooms.

In examining the benefits of using technology to extend the classroom, Rust (2019) implores instructors to think about a critical digital pedagogy that "takes that spotlight off of utilizing all things shiny and digital and new and helps us *zoom out* to the fuller picture, the one that takes into account the ebb and flow that make up our learning and communicating as humans" (pp. 126-127, my emphasis added). Although not as fixed on the idea of extension, Rust's study recognizes the relationship between technology and pedagogy; she finds that her faculty participants accounted for "the ways that newer tools unlocked access to a wider range of texts and materials for thinking and learning, aided in accountability and transmission of information, and enabled people to take agency over their own learning" (p. 125). In other words, through the lens of critical digital pedagogy, the classroom creates a foundation for learning while the technologies used outside of the classroom (should) allow students to open up their own learning experiences. My instructor participants' designs appear to create such experiences for their students; this is particularly true for Gary and Paul, who prioritize course content and student engagement in the classroom over Canvas.

Engaging with the Network

Another important feature of the network is the *engagement* that occurs within and around it. The relationship between learning and engagement has been taken up in the scholarship of higher education, particularly in the domains of college students' development (e.g., Barber, King, & Baxter Magolda, 2013) and student engagement and success (e.g., Kinzie & Kuh, 2004; Keeling, Underhile, & Wall, 2007; Kuh, 2007), both of which undergird high impact practices that deepen student learning. This literature demonstrates the importance of engagement in service of learning. In terms of technology, scholars in higher education do explore the relationship between learning and engagement for some technologies, like eportfolios (e.g., Hubert, Pickavance, & Hyberger, 2015), but technology writ large —particularly educational platforms such as course management systems—appears to be missing from this literature. I argue that course management systems *can be* high impact practices based on what pedagogical investments instructors make in them, as well as what students want to (or think they should) invest in return. However, in my observations of student writing and my interviews with student participants, I discovered that students find less value (or different value) in using Canvas for writing instruction than their instructors do, so I am less focused on Canvas's potential as a high impact practice at this juncture than I am in attending to the role of educational technology in engagement. I also seek to bring this conversation to bear on writing studies by offering a theoretical framework that views student writing (and their perceptions thereof) as part of that engagement.
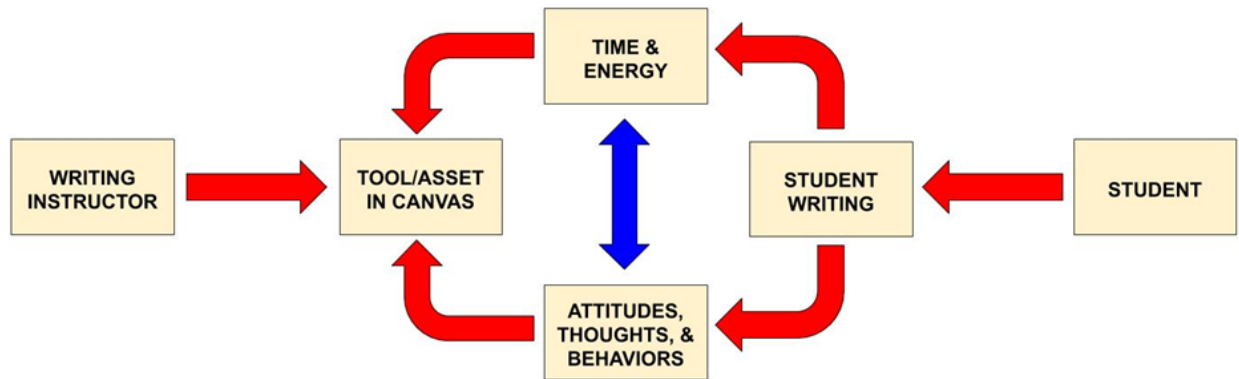
Figure 1.2: An architecture of instructor extension and student engagement in Canvas.

I argue that writing comprises a form of engagement because it can evidence the amount of time and energy that students spend on a task in Canvas (see Figure 1.2). To this end, I adopt George Kuh's (2003) definition of engagement, which is the "time and energy that students devote to educationally sound activities" (p. 25). While time and energy are arguably difficult to qualify (and sometimes difficult to quantify), they can help us to understand how long and with what kinds of effort a student puts into their learning experiences (e.g., how long a student might spend on reading a post in Discussions). A writing instructor may use one tool or asset in Canvas for which students may spend a minimal amount of time using, while they use another for which students spend more time using. It is also worth considering the role that Canvas plays in mediating student engagement in these tools; are the students who write more than expected doing so because the writing instructor's pedagogy translates well through the Canvas feature, or is there something about the feature that is spurring engagement? By looking at writing through this lens of engagement, I wanted to learn more about how students' writing processes might change depending on the tools their instructors deploy in Canvas or respond to them in some way.

In order to understand how students *perceive* their engagement in Canvas, I also adopt Marcia D. Dixson's (2015) definition of engagement, which includes "individual attitudes,

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thoughts and behaviors" (p. 146). While many students might see their engagement through writing as a solitary act for which they produce an assignment or a written response in Canvas that only their instructor will read, I assert that their writing can also demonstrate attitudes, thoughts, and behaviors related to the tools their instructors deploy. If a writing instructor uses a collaborative document as part of peer review, and a student finds it an uncomfortable space, the student may demonstrate that attitude through limited contributions or by continually calling out their instructor in the document to verify that what they are doing is correct. On the other hand, if a writing instructor uses a wiki tool, and a student finds it interesting, the student may go above and beyond the assignment parameters. This is not to say that this experience is universal for all students, nor that such an example will differentiate between success and failure, but it as a useful lens for learning about how students might show that they are getting something (and *what* they are getting) out of a tool or asset through their writing.

Though Kuh and Dixson do not directly address the role of instructors in student engagement, I argue that writing instructors nevertheless occupy an important part of this theoretical framework. Since they are the ones who deliver, facilitate, and mediate writing instruction through Canvas, their decisions can have an impact on how students write, how much they write, and in what frame of mind. In many cases, writing instructors are also the ones who begin the process of engagement by instructing their students to compose in response to a prompt or a set of tasks, or by instructing them to use a particular tool or asset in Canvas to compose in a particular way. At the same time, writing instructors may not be the only influence on students' writing in Canvas, and in fact, may not be the *primary* influence, which is why I have positioned Canvas at the center of this theoretical framework. For example, if a writing instructor decides to use a discussion board, and students' conversations in this space are meager, then we should not

just look to the instructor's pedagogy for answers; we should also look to how Canvas itself may be influencing students' engagement. That is, perhaps there is something in the design of Canvas's discussion board that limits the amount of time and energy students spend writing posts.

Mapping Multimodality in the Network

In many ways, the concept of network is also tied with current ideas of multimodality. A widely contested term, multimodality has a much longer history that extends into and from a range of fields and disciplines, but it remains an important framework for writing studies, and, in particular, the teaching of digital writing. One of the more popular definitions of multimodality in writing studies—and one that I have used since I first started as a writing instructor—comes from Pamela Takayoshi and Cynthia Selfe (2007): "texts that exceed the alphabetic and may include still and moving images, animations, colors, words, music, and sounds" (p. 1). Other multimodality scholars, such James Paul Gee (2003) and Gunther Kress (2010), offer different dimensions of this idea by considering the broader implications of what it means to engage with a multimodal text: the meanings within and surrounding a text, and the range of literacies that can be gleaned from engaging multimodally. Yet what makes Takayoshi and Selfe's definition so accessible and applicable to LMSs such as Canvas is that it suggests a simultaneity of text(s), modes, and effects, and it also suggests implications for design and networked writing and learning experiences.

Multimodality is also an important touchstone for conversations around templates, which is precisely how Canvas operates whether or not the instructor customizes the content and appearance within a course site—and may even stifle creativity and design. Templates can help

us to understand how default organizations and hierarchies within an LMS make assumptions about how instructors and students use them, as well as what tools and resources they will prioritize over others. As Kristin Arola (2010) argues, "Even when we choose a template… we are not producing the design ourselves" (p. 7). Further complicating this notion is the rapid proliferation of technology—particularly mobile technologies—which make templates all the more alluring. For example, John R. Gallagher (2020) notes, "[A]s technology becomes increasingly mobile and wearable, quick and easy-to-use templates will continue to gain a more prominent role in our lives as the twenty-first century progresses" (p. 33). It is perhaps no wonder, then, why some instructors and students approach LMSs such as Canvas with resistance; if such spaces are designed with little need for change or customization, why bother innovating?

Multimodality may account for other forms of design and engagement which, while they may not constitute writing per se, may be related to it in some way. Hewett's (2017) article contributes to the notion of multimodality by offering a vision of literacies that integrates reading, writing, and online composing that is useful in thinking about what spaces and tools writing instructors use for engagement and how that engagement might manifest in students. As Hewett argues, "Reintegrating reading, writing, and digital composition—particularly in online settings—into one holistic skill set will teach students about the kinds of communication for which they will be responsible in their future work" (p. 32). While Hewett's argument may very well get at at the tension between instructor and student conceptions of engagement, it ties back to the central question of this dissertation because writing instructors may have specific intentions and desires for how students should engage in Canvas—including what kinds of literacy they should pick up along the way—but students may have a markedly different perception of their learning and engagement.

As Doug Eyman and Cheryl Ball (2014) suggest, multimodal approaches to writing, and, indeed, argumentation, merit further investigation of design practices. As Eyman and Ball rightly note, "Design is a rhetorical function that plays an important role in… rhetoric, most obviously related to style (particularly in terms of visual rhetoric), but also of organization" (p. 115). Arguably in a similar way that some writing instructors have come to depend on modes and formulae to teach writing, LMSs such as Canvas lean into templates as a way of organizing and guiding students' learning. But as Arola warns, "If we don't want our students to become the invention of the template, what do we do? Realistically, we are not going to change the ubiquity of template-driven design, but we can change the shape of our students' discursive consciousness and rhetorical awareness" (p. 12).

Bridging discussions of multimodality and networked writing, Dànielle Nicole DeVoss (2010) explores the networked, collaborative, and policed nature of digital writing. DeVoss writes that "Digital writing is multimodal. Digital writing is remixed. Digital writing is, in some ways, fixed; in other ways, it circulates" (p. 16). Where LMSs such as Canvas are concerned, course sites allow student writing to become fixed when it is uploaded to an assignment portal, but it can also become circulated when it is shared with others in this space—and when its processes (e.g., research, classroom discussions about writing) extend its reach. Further bridging the ideas of multimodality and networked experiences, Dusenberry et al. (2015) note, "Multimodality makes us contemplate complexity in relation to clarity, asks us to draw connections, and helps us see correlations" (p. 310). Dusenberry et al.'s research takes place in a technical communication context, but they note that "Multimodal pedagogy in technical communication emphasizes defamiliarization, problem-solving, and system thinking" (p. 310). System thinking, in particular, is arguably an important feature of networked learning and

writing because it suggests that students must hold multiple modes and processes in mind when learning about writing and preparing to write. In other words, LMSs such as Canvas create a kind of system thinking by encouraging students to think about Canvas (and its design) as part of their writing processes.

Looking Ahead

In the chapters that follow, I expand on these conceptual threads and offer insights into not only how writing instructors use Canvas as an extension of their classrooms but also how students engage with their instructors' design and organizational choices. First, in Chapter 2, I explain the theoretical underpinnings related to the network, as well as delineate my study, participants, and methods. In Chapter 3, I share my findings from instructor participants, who enact their agencies in the network by extending various aspects of their classroom, including building values of community and structures for writing and accountability. In Chapter 4, I share my findings from student participants, particularly from those who engaged with their instructors' course sites in reflective and insightful ways; I also share student experiences of resistance, which I argue is a critical form of engagement. In Chapter 5, I share the major takeaways of my instructor and student participants' experiences with Canvas, including how writing and digital scholars might investigate further the tensions between extension, engagement, and agency and how instructional and IT support units might support instructors' extensions and students' engagement in the network. Many questions of network, extension, and engagement remain in the wake of this study, but its findings call for a critical shift in how we view LMSs such as Canvas and their role in shaping writing classrooms beyond the COVID-19 pandemic.

Chapter 2: Theoretical Framework and Methods

It was not until writing this dissertation that I realized that I, too, envision Canvas as an extension of the writing classroom. As I mentioned in Chapter 1, my interest in LMSs was a slow burn, but when I took a course on online pedagogy during the first semester of my master's degree, I began to see not only the differences between how my instructor and student selves use LMSs but also the ways in which the very actions of uploading, building, and customizing content in a course shell (as I was using Blackboard at this time) was, in essence, constructing the architecture of a classroom. For the online courses that I taught, this architecture was arguably more contained and needed to stand on its own because students were not coming into a physical classroom space. What surprised me the most, in hindsight, is how much this online architecture would inform the ways in which I build content for F2F courses; rather than seeing the online and F2F experiences as *different* (which, in fairness, they were), I began to see my online content as a means of filling in gaps, replacing experiences, and creating alternative methods for student engagement beyond the physical classroom space. In other words, for me, online teaching and F2F teaching are part of the same pedagogical network.

In the online pedagogy course, our summative assessment instructed us to build a *learning unit* for a Blackboard course shell; our professor gave us latitude in terms of how big or small this unit could be, and so some students built a writing assessment unit, and others, like me, built an entire course. It should not be surprising that many of my design and organization decisions were overly ambitious and did not possess the same degree of consideration for accessibility that my decisions (hopefully) do now. However, in the same way that online

pedagogy came to inform my F2F teaching, my F2F pedagogy was a precursor for how I thought about my online content. That is to say, I began with plans for an F2F classroom and began eliminating, replacing, or inventing pieces of this architecture so that it would operate online in the spirit of my F2F classroom. Perhaps this stems from an ever-present anxiety to do right by my students, but I have learned since this time that, for me, attending to and maintaining the LMS is not just part of my writing pedagogy—it *is* my writing pedagogy.

This experience has also laid bare the patterns and tendencies of my teaching, including my own reasons for using or not using specific tools in LMSs such as Canvas. For example, although Google Docs was not integrated when I was using Blackboard, it is something that I used for peer review in online courses because it made my students' interactions visible and accessible to me and to group members. I continue to have students use (or at least invite them to use) Google Docs in my F2F courses for the same reason. Conversely, whereas I used discussion board tools for weekly student engagement in online courses, I have found that they often produce stale or perfunctory responses, even if they are low-hanging fruit in terms of gauging student engagement. Interestingly, video (which my graduate consultant group has recommended for humanizing my asynchronous professional development workshops) is something that I used to feel was vital for communicating my teaching presence (e.g., Garrison, Anderson, and Arbaugh, 2000)—even for a couple of F2F courses. I would post a weekly video address for my students in my online courses, though, once I learned that many of them did not even bother to watch these videos, it became difficult to maintain as a pedagogical practice, and I find myself balking at the idea of creating a video for professional development workshops when attendees can simply dive right into the material. My readers are not wrong to sense preference and ambivalence at the heart of these words; indeed, as I suggest later on, instructors' personalities,

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including their reasons for adopting or not adopting particular tools in Canvas, are part of the means by which they extend their classrooms.

It is also important to note that, because I see physical classroom spaces and LMSs as part of the same pedagogical network, *and* because I constantly interrogate the tools I adopt, continue to use, or discontinue on Canvas, I now tend to see courses (not just writing courses, but all courses) as directories. As a writing instructor, whether I am building a course from scratch or modifying content from a previous course, I always ask myself what kinds of files and tools on Canvas will be associated with my learning units, as well as how I display them and make them accessible to my students. As a graduate consultant for other instructors, when I observe other physical or online classrooms, I think about the ways in which what instructors teach their students is manifested (or not) in their Canvas course site. As I argued in Chapter 1, the ubiquitous presence of LMSs such as Canvas makes all courses *partially hybrid*; even if writing instructors only use Canvas minimally, it is part of the architectural network by which instructors amplify their pedagogy (even by saying, "We are not using Canvas this semester") and their students write and learn in response.

Roadmap of This Chapter

The purpose of this chapter is to narrate the methodologies, site and participant details, and positionalities at work in this dissertation. First, I delineate the rhetorical and architectural methodologies that inform the observation, interview, and coding protocols in the study. Next, I introduce the site(s) and participants of my study. Finally, I discuss my positionalities and identities as a writing instructor, digital researcher, and user of technology, as well as the methodological limitations made visible by the COVID-19 pandemic. As readers make their way

through this chapter, they should note two things: (1) I purposely lean into methodologies rather than methods because doing so helps me to articulate network analysis as a means of more openly understanding Canvas as an extension, and (2) coding, similarly, is perhaps best articulated as a methodology because, as I explain later on this chapter, my preliminary round of coding did not distill my participants' utterances into the themes of extension and engagement as much as it did *lead* me to them.

Rhetorical Frameworks

Building the Network

As I mentioned in Chapter 1, I see writing instructors' pedagogies and students' writing and learning as constitutive of a *network* by which they write across different spaces internally (e.g., discussion boards, collaborative documents), write across different spaces externally (e.g., university library websites, office hours with their instructors), and access and use all of these spaces in different ways. I lean into Eyman and Chun's network taxonomies as part of my framework of embedded observations in Canvas; while Eyman approaches network analysis from a more rhetorical perspective than does Chun, both frameworks allow me to think critically not only about the tools through which writing instruction is delivered in Canvas but also how students are engaging with these tools through their writing. Thus, to get a better sense of how students are engaging through writing across this network, I examined all of the tools my instructor participants and their students used for various kinds of writing and learning, such as a specific writing assignment (e.g., a unit summative assessment) or for building a writing skill (e.g., announcements clarifying an approach to an assignment). In terms of instructor design, I considered not only what writing instructors were asking their students to write (or what they are

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expecting their students to do in service of writing) but also how much time and energy they expect from their students to this end. As an observer, I also kept track of instances of *informal* writing expectations (e.g., what instructors are telling their students about an assignment in class) to better understand the range of student engagement between assignments that have a grade or an expectation of participation and writing situations that do not.

In terms of student engagement, this network framework allowed me to track the responses that students had in Canvas, as well as what processes they engaged in to find information and course materials. Students' level of engagement, I argue, also demonstrates how they are conceptualizing their learning about writing; as I found in Chapter 4, students were able to narrate connections between their major papers and the other assignments and instructor-produced text they used in Canvas, indicating a network for writing. The following framework, developed from Eyman and Chun, shows a set of lenses for observing the different ways that students and their instructors interact with Canvas:

- The first category of this framework, *network*, offers a broader view of the locations, navigations, and interactions through which student writing might occur. During my first set of observations, I aimed to get a lay of the land in each course site by taking stock of what instructor participant built into Canvas to facilitate and evaluate student writing. Over the course of my observations, I also saw the ways in which the network becomes populated by student writing. For example, if an instructor used Discussions, I was able to see how this part of the network is grew over the course of the semester.

- The second category, *nodes and links*, offers a more granular view a of how student writing is connected over the network. A node in this case would represent a specific tool or asset the writing instructor has deployed, while the link would represent how the

student is accessing it. In terms of my observations, nodes and links helped me inquire into where the instructor has located a particular tool for writing (say, a collaborative Google Doc) and how many clicks it takes a student to access it. For example, if it takes too many clicks to access this Google Doc, or students are not utilizing this space in the way the instructor wants, it may indicate an issue of pedagogical or technological accessibility.

- The third category, *navigation*, is one that I created from Eyman and Chun's frameworks to account more specifically for how and where agents (in this case, students and instructors) are accessing and using resources in the network. With this in mind, I wanted to investigate the extent to which students follow the paths (or the nodes and links) their instructors build for them or go off the beaten path, so to speak, because it serves their writing more effectively. For example, as I discuss in Chapter 4, some students navigate their writing networks in ways that might be counterintuitive to the default design of their course site or to their instructor's expectations.

Perhaps another important framework for these observations, similar to the network analysis I have proposed, is *activity systems* (Spinuzzi, 1996; Russell, 1997) in the writing classroom, as popularized by Kain and Wardle (2005). Through the lens of writing, I see Canvas course sites as *object-oriented*, meaning that they have a specific goal (which, in this case, is the learning of writing); *tool-mediated* (which accounts for the various tools that writing instructors use); and dependent on *human interaction* (which evinces how teachers and students are working together toward learning goals in writing through Canvas). Looking to Canvas and the people who use it as part of an activity system enriches its view as a network by which instructors create (and maintain) an extension of their classrooms and by which students engage at the edges of this

extension; that is, rather than just simply taking stock of where tools are positioned by the instructor and how students are writing in them (or using them to write elsewhere), activity theory allows us to contextualize the network further by interrogating the *relationships* among students, teachers, writing, and tools in Canvas.

Taken together, the frameworks of network analysis and activity systems provide observers with language and lenses through which to better understand the relationship between technology, agents (i.e., writing instructors and students), and learning. They also helped to understand the technological traces of writing instruction and learning in Canvas. Justin Lewis (2016) examines technologies in online platforms as coordinated "rhetorical genres" that shape individual and shared experiences; while Lewis's study considers the more programmatic aspects of technology to this end, the notion of "rhetorical genre" is useful in thinking about how technology mediates decisions in designing and writing. A network and activity theory approach, then, may enable digital scholars and writing instructors to better understand the rhetorical choices that writing instructors are making (or the choices of Canvas as a rhetorical technology) in selecting certain tools over others in Canvas, as well as the kinds of writing that students are producing with these tools and how they are conceptualizing this writing in response to these tools as useful to their learning. I also used these embedded observations as part of my interview protocols with instructor and student participants; for example, when I distilled my observations into a memo, I revised parts of my interview protocols to ask participants questions such as, "I notice that your class has changed from Quizzes to Google Docs. What do you think of this change?"

Designing the Network

At the heart of writing instructors' design decisions and students' use of learning management systems is the system itself: in this case, Canvas. According to a needs assessment survey conducted by Vanderbilt University's Center for Teaching (Coble, 2016), the largest block of users hails overwhelmingly from the arts and sciences, followed by nursing. While these results do not necessarily suggest that learning management systems are better suited for arts and sciences, it does offer insight into the kinds of features that tend to get taken up by instructors and students in the humanities. The report notes that posting content, grades, and messages are of great importance for instructors and students. Interestingly, the report also states that the writing-based tools, such as blogs and discussion boards, have a far lower value for respondents. My participant recruitment surveys for this dissertation offer some texture for these, which, as I explain in the next section, may come down to a difference in context. Although my sample size is much smaller and localized to graduate instructors in the writing program, there are some slight differences which may help to complicate the perceived usefulness of Canvas. For example, while discussion boards are not as important for students and instructors as, say, assignments, discussion boards are still a (fairly) commonly used feature among respondents. Not surprisingly, students do not find discussion boards as useful as do instructors, and so a decision to use the Discussions feature in Canvas is an interesting and perhaps risky venture. Dagney is the only instructor participant to use Discussions frequently, and her decision to do so goes against the grain of students' negative perspectives of discussion boards (e.g., Watson, 2008; de Lima et al., 2019), but, more importantly, opens space for thinking about how to use Discussions in ways that Canvas does not typically afford.

Equally important to consider is the default design of the Canvas itself. In looking at any of my instructor participants' course sites, it is clear that Canvas intends a specific hierarchy by

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which each course site and its constituents comprise their own parts of the network. Hierarchies are an important concept here, as scholars such as Wysocki (2001) note, because they help users see how the parts are related to the whole, as well as how easy or difficult it is to navigate between these parts. Hierarchies are also important because they undergird two important things: (1) hierarchies show how tools and resources work against one another, which may account for why instructors are more likely to select certain tools over others and why students are more likely to access certain tools in certain ways, and (2) hierarchies show how tools and resources act against the users themselves, which raises questions about the proprietary influences (that is, the influences of Canvas and its developer Instructure) on how instructors design their course sites and how students navigate them.

One way to think about hierarchies in Canvas is to think about the different stakeholders who are involved in the creation of a course site—not just the instructors but also entities who control things behind the scenes. At the top of this hierarchy are the developers, who dictate the initial design and function of the course site (in other words, the default appearance of the course site before instructors change things); the default design makes assumptions about what the most important tools will be, as well as what order instructors and their students are likely to access them. Arguably near the top are the university administrators, who negotiate contracts with Instructure about the branding, appearance, and priorities of Canvas—this negotiation, too, has implications for how students and instructors might use their course sites. At the bottom of this hierarchy, of course, are the students themselves, who have no control over the content outside of their ability to navigate it. One added complication to the student perspective is that they do *not* have the same perspective of their course sites as their instructors; instructors have the ability to hide tools from the menu, which are still entirely viewable in the instructor view. In these ways,

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Canvas mediates teaching and learning experiences by shaping the experiences of end-users by giving them things that developers *believe* they need.

Another way to think about these hierarchies is to think about how this pre-packaged approach might influence instructors' and students' agencies. In fact, the entities who have the power to design, deploy, and even participate in course sites speaks to how a course site is intended to be used, as well as "who owns and *controls* it" (van Dijck, 2013, p. 36, my emphasis added). I shall emphasize again that the developers are at the top of this hierarchy, as they are the entities that create the default design and organization of a course site in Canvas. But more importantly, they *control* the kinds of possible navigation and the kinds of resources that can be created, stored, accessed, and changed. In this way, Instructure creates the branding and packaging that governs the kinds of instruction and learning that can take place in Canvas; students and instructors cannot use Canvas without this branding and packaging operating in the background. While instructors do not have agency over the *choice* of tools and resources in Canvas, they do have agency over the organization and visibility of these items. As students are positioned as the end-users, it is unlikely that they consider their own authority when navigating Canvas as they tend to defer to the direction of their instructors; ultimately, little room exists for students to negotiate their user experience unless instructors bring them directly into conversations about design and organization. This hierarchical view of Canvas certainly evinces the power that a network can have, as Eyman asserts, as multiple entities are participating in the design and deployment of course sites in Canvas.

And what about those who support and maintain Canvas? It is unclear where IT specialists feature in the hierarchy because their influence often remains unseen, but it *is* clear that they play a role in student and instructor access and navigation. When instructors and

students experience technical difficulties with Canvas (e.g., challenges accessing a tool), they can get in touch with IT specialists to fix the issue, but the fact that they are prevented from using something in Canvas until the issue is resolved suggests that IT specialists—whether intentionally or unintentionally—command a certain power when it comes to Canvas. In my second interview with the instructor Gary, I learned that he encountered a technical issue with his smart device (which he uses for everything) that prevented him from writing inline feedback correctly in Canvas. As Gary noted, "But as you can imagine as a writing instructor, it's pretty frustrating. I would like to do inline comments, and the only thing that's available to me through Canvas at the moment are comments at the end" (Interview 2). At the time of our conversation, Gary stated that general comments were fine for the first formative assessment, but he expressed concern about not having inline comments for the upcoming assessment. The issue was resolved in time, but this instance highlights the ways in which course sites are at the whims of entities who ultimately have more expertise and leverage to make things function than do instructors.

Methods

Interview Protocol

The first component of my interview protocols (see Appendix A) is semi-structured interviews (Hesse-Biber, 2017) with *instructor participants* to understand how and why they design their Canvas course sites the way they do. These interviews were audio-recorded and transcribed. I conducted three interviews—one at the beginning of the semester to get a sense of writing instructors' pedagogical and personal goals for using Canvas and how they are understanding their students' engagement through writing, and then mid- and end-of-semester interviews to get a sense of what they have changed, what they have kept the same, and how they

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feel about their students' engagement. During the mid- and end-of-semester interviews, I also used my embedded observations to help me contextualize the rhetorical choices that these instructors are making in their designs. I developed these interview questions and the order in which they appear around some of the things I observed in my participants' course sites; for example, I often referenced specific Assignments, Announcements, and other features of Canvas in the second and third round of interviews. The interview at the beginning of the semester was foundational and crucial for establishing rapport, while the other two were focused more specifically on *moments* of design and organization.

The second component of this protocol is the screencast interviews with *student participants*, which helped to understand not only how they are engaging with their writing through Canvas but also how they perceive of their writing in this way. These interviews were collected via screencasting technology and then sent out for transcription. As with the instructor participants, I conducted three screencast interviews—one at the beginning of the semester to get a sense of students' conceptions of the course and what they think about their course site, and then mid- and end-of-semester interviews to get a sense of how their approaches to, and conceptions of, using Canvas have changed or remained the same, as well as how they feel about their engagement. I developed these interview questions and the order in which they appear around some of the things that might come up organically in our conversations. Again, the interview at the beginning of the semester was foundational and crucial for establishing rapport, while the other two were focused more specifically on moments of engagement.

Observation Protocol

The final component of this dissertation, which I situate in between the instructor and student interviews, is my embedded observations in each Canvas course site. This method is crucial for not only putting my instructor and student interviews into conversation with one another but also for seeing how the space influences, (re)contextualizes, or translates engagement. This approach required two layers of permission: first, I needed permission from the instructor to embed myself in the course site, and second, I needed permission from the entire class. This approach potentially added another layer of pressure because I would effectively be present in what most people might consider a closed space; however, I wanted to observe instructor design and student writing and learning directly in Canvas as a way of triangulating both experiences. In order to prevent myself from viewing sensitive information (such as student grades), I asked the instructor to add me in the "Observer" role on Canvas. After researching the various roles once could take on Canvas, I found this one to be the safest while allowing me to see most of the tools and spaces being used in the course site. Once I was embedded into the course site, I took field notes pertaining to how I saw the resources and tools that instructors had built into their course sites. I built these observations over the course of the semester as I was seeing new things added into the course site. For my field observations, I checked in at least once a week for each course site and memoed about patterns I was noticing, as well as questions I had that might inform a later iteration of my interviews with participants.

In my experience, users are typically embedded in LMSs for a variety of purposes: to observe what another instructor is doing in their course site, to take a specific role (such as grading or facilitating discussions), or to be resource, as Merideth and Mussell's (2014) study about librarians embedding themselves in CMSs demonstrates. However, as a researcher, I was deeply concerned about the ethical implications of embedding myself in Canvas—that is, the

way in which student and instructor participants *perceived* my presence in their learning space. In spite of these ethical implications, embedding myself in Canvas allowed me to better understand not only how instructors' design and organizational decisions are manifested in the course site but also how students are engaging with these manifestations.

Coding Protocol

After sending my audio files (i.e., my recorded audio interviews with my instructor participants and my detached audio from my screencast interviews with student participants), I engaged in a preliminary round of coding (e.g., Saldaña, 2016) using the NVivo software (see Appendix B). This process of open coding was long, amorphous, and, at times, scattershot. Figuring out how to read and annotate my data was the most challenging part; on some days, I did not feel that I was looking at anything, and I often felt that my annotation yielded a list of keywords that did not seem to connect to one another. In fact, for the first three interview transcripts, I felt that I was not writing the same keywords, and it took a long time to lump them together usefully. However, once I got over the initial slog, I found that the process sped up; I also noticed that I was marking the same patterns and that some of my codes were becoming a little more sophisticated (e.g., I began noticing a difference between preference and aesthetics). To keep track of my codes, I made a bulleted list according to participant and course in a secure online storage cloud; I was trying to keep students and instructors grouped in the same classes to observe the overlaps and disjunctions that were occurring in terms of how Canvas is used. Open coding also allowed me to observe some of the general coding patterns that were emerging. I observed that I was using a lot of *process coding* (I seem to have an attraction to this kind of coding because I am interested in what participants are doing, so there are quite a few codes that

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are -ing verbs). I also observed a few instances of *descriptive coding* (in other words, trying to encapsulate what I see going on in one word), as well as *in vivo coding* (using participants' wording as codes). I also observed some forms of *affective coding* coming through in the data as some of my participants did have useful affective reactions to their use of Canvas.

Although I had planned another round of coding, I found it was easier—in part due to the challenges of the COVID-19 pandemic—to select conversations from my instructor and student participants based on the larger themes and categories that I had devised from the preliminary round of coding. In some cases, I found that my interview questions encapsulated many instances of networked extension far better than my coding did. Thus, while I did not abandon my coding entirely, I paired it with what some scholars might call identify as a phenomenological approach; that is to say, while the theme of extension is arguably traceable through many of the codes I identified, salient concepts, such as the theme of extension, were made clear through the interview process itself, most notably by Gary, to whom I first attribute the use of the word "extension" in Chapter 3. I was also able to extrapolate the theme of engagement from my student participants in Chapter 4 by investigate how students were narrating their processes and responses to their instructors' course sites. In this way, I was able to make more concrete connections between instructors and their students (e.g., observing how writing instructors would create Announcements in Canvas as a way to extend community, while students would use Announcements to skim for information).

Study Information

Site of Study

Initially, to better understand the different possibilities for how student engagement happens in Canvas, I decided to pursue course sites that were either *medium* or *high*-use; that is to say, I aimed for course sites in which the instructor uses multiple tools for teaching (e.g., using discussion boards, collaborative documents, and the peer review function for multiple writing goals), or, at the very least, in which the instructor uses *some* tools in Canvas, but may be using other methods outside of Canvas as well (e.g., using discussion boards and the peer review function in Canvas, but asking students to submit hard copies for their writing assignments). Ultimately, I found that the instructor participants I recruited simply had different approaches to their course sites, and so the degree to which they used them became less important than how. I wanted to be able to lean heavily on my embedded observations to give me an idea of how student writing and learning is happening in Canvas; I also wanted these observations to inform my interviews with instructor and student participants to better understand the relationship between external factors (e.g., how writing instructors may verbally tell their students how to do something) and students' writing and learning in the course site.

Participant Selection

For each of the three course sites, I selected three writing instructors using a combination of convenience and purposeful sampling (Merriam, 2009). During the summer of 2019, I sent out an email invitation to writing instructors in our department's writing program to seek instructor participation. I anticipated that most of the participant pool would be graduate student instructors, though by soliciting participation through the writing program, I was hoping recruit term lecturers who happen to be teaching the same or similar composition courses. To narrow the field of participants, once instructors indicated an interest, I sent the survey I disseminated in my

pilot study to get a preliminary sense of how they use and perceive Canvas. Again, much to my surprise, I did not get any of what I would have characterized as high-use course sites; I learned in the recruitment process that participants have different conceptions from my own about what constitutes high-use. Nevertheless, as evidenced in Chapters 3 and 4, the instructor participants I selected had course sites that were useful for thinking about extensions of the classroom and the writing process more broadly.

Once I settled the matter of research sites and instructor participants, I sought three student participants for each case (a total of nine student participants). At the beginning of the Fall 2019 semester, I visited the classrooms of prospective research sites to ask for consent to be an observer in their Canvas course site, and to solicit student participation for interviews. During my visit, I offered a student version of my pilot study survey to see if there would be interested candidates; for two classes, three students responded and consented to be part of the study, and for one class, two students responded and consented. During the first round of scheduled interviews, I asked each instructor and student participant to sign a consent form indicating their understanding of my terms for research and what I would be using their data for. Most of the interviews took place in our institution's School of Education building, though I also conducted interview sessions with participants in other locations on campus and in the community. I also engaged in a round of member checking with instructor and student participants to ensure that I represented their utterances and perspectives ethically and accurately.

Participant Profiles

Gary is graduate student instructor who teaches the standard first-year composition course. He comes to this institution with a background in high school teaching. Gary's approach

to teaching and communicating with his students is open-ended and informal; he prefers assignments that "give students a chance to do research and writing about topics that engage *them*" (Interview 1, my emphasis). His pedagogical goal for students is to understand the varying nature of rhetorical situations, including how to engage with them in flexible ways. His course content, and his course site in Canvas, is separated into three ideas: who we write for, what they (readers) need to know, and how we make it matter. Gary's approach to technology is one of simplicity and trial and error, and so, unsurprisingly, his course site is relatively simple and efficient. He makes use of very few tools and functions in Canvas, opting for more personal guidance for his students via office hours. As he revealed in his first interview, he is also willing to try (and change up or abandon) technologies as is appropriate for his students' needs. Augmenting Gary's approach to simplicity and experimentation is the fact that Gary uses an iPad to deploy his instruction through Canvas and in the classroom.

Andres, the first student in Gary's class, is a computer science major. His interest in computer science stems from his interest in video games, as well as his exposure to it in high school. Andres notes, "[T]here was a new computer programming class that they had, and I liked the teacher more for that class. So I took that class and then it turned out that I really liked programming" (Interview 1). As we talked about Canvas, we also had conversations about what it means to write in programming and about controversies surrounding Pokémon. Andres is in Gary's class, not surprisingly, because it is a requirement. Before using Canvas, Andres recalls using Google Classroom, Moodle, and Blackboard as his learning management systems. When he writes, Andres said that he tends to use Google Docs as his composing space; he also uses the Grammarly extension as part of his writing process. Outside of class, Andres expresses interest in two kinds of writing: writing that he does in programming (documentation for coding), and the

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various applications for scholarships and professionalization programs. As Andres said, "I spent over 70 hours writing scholarship essays and I applied [to] about 35 scholarships. And then I've applied to like hackathons, I had to write like five essayed to apply to I think MIT then I had to write like five essays to apply to a Google program" (Interview 1).

Brianna, the second student in Gary's class, is still thinking about her major at the time of this study, though she is considering a program related to psychology with an eye toward pre-law. Specifically, Brianna said that she is interested in criminal investigation and why people make the kinds of decisions that they do. Brianna said, "I want to be in the FBI or the CIA maybe… I'm just really interested in—not being a lawyer, but just law and that kind of stuff" (Interview 1). She is taking Gary's class because it is a requirement, though she indicates that she was attracted to how the course focuses more on structure than on content. Before using Canvas, Brianna recalls using Moodle and STEM (not just a name for the field, but apparently for the learning management system, as well). She said that she uses Google Suite as part of her writing process (e.g., Google Docs, Google Calendar). Brianna, who shares more of a predilection for mathematics, said that she does not do writing outside of class; as she notes, "[Writing is] not really my thing. I don't like the process of it. But at the end result, it's satisfying to be like, 'Oh, this is my paper.' But it just takes me so long to write a paper" (Interview 1).

Jacob, the third student in Gary's class, is also still considering his major, but he has indicated that he wants to pursue something in STEM or computer science. Similar to Brianna, Jacob said that he is more of "more of a math-minded kind of individual," preferring to work with number rather than write (Interview 1). Following his peers, Jacob chose Gary's class because it is a requirement, but he shares that he likes that Gary's class does not have a theme. Before using Canvas, he recalls using Schoology, Google Classroom, and Aspen as his learning

management systems, noting that he liked using Schoology the best. He also uses an online

thesaurus as part of his writing process. Although Jacob expresses an interest in reading, he does

not indicate much interest in writing and does not do any writing outside of school. As Jacob

said, "I do enjoy writing I guess a little bit, but these long-winded essayed that are assigned in

high school and college I guess I didn't enjoy as much" (Interview 1).

Dagney is also a graduate student instructor who teaches first-year composition.

Dagney's approach to teaching and communicating with her students is one that is steeped in

socializing and democratizing learning. Her pedagogical goals include the importance of

positionality and identity in terms of writers and readers. She teaches assignments that appear to

align with one of the templates given to incoming graduate student instructors[1]: a literacy

narrative, a rhetorical analysis, a Rogerian argument (arguably a modified version of the

research-based argument), and a multimodal assignment. Dagney's approach to technology is

one of structure and guidance. She uses Announcements to preview the readings and tasks that

students need to complete for the next class, and she writes her assignments in very detailed,

structured ways (often including color coding and hyperlinks to relevant materials elsewhere in

the course site). Dagney also uses Discussions to have students engage in idea generation. One

unique aspect of Dagney's use of Canvas is that she hides many of the menu items; in particular,

Grades are not available to students at all (a decision that she her students made at the beginning

of the semester).

Nate, the first student in Dagney's class, is currently interested in mechanical engineering

with a minor in design. His interest in these fields stem from a passion for automobiles; during

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[1] Graduate student instructors such as Dagney, Gary, and Paul are given a choice of syllabus templates by their writing program that contain a sequence of assignments and built-in readings. After the first semester, instructors may choose to retain, modify, or abandon these templates.

our interviews, we talked at length about automotive design, which he also indicates is quite easy for him to write about. As Nate say enthusiastically, "I've been a car nut since ever since I got my license. It's a large part of my life. It's what 80% my brain is thinking about at any given moment" (Interview 1). Nate is taking Dagney's class because it is a requirement, though he notes how much he lucked out because of how much he is enjoying the class. Nate has some prior experience using Canvas, and he has also used a version of Google Classroom in the past. Perhaps unique from the other student participants, he often uses programs such as Microsoft Office and Photoshop as composing spaces on his computer, and he regularly participates in forum discussions about Volvos. Nate said that for his particular interest in cars developed during the 80s and 90s, "[the] forum is often where you're going to find the most information because… you can look up a post on there and there will be a post from 2006 that is still dead accurate and will absolutely hold up" (Interview 1).

Sarah, the second student in Dagney's class, has not declared a major at the time of this study, though she said that she is interested in engineering. Her interest in this field seems to stem from her interest in mathematics; as Sarah shares, "I really like math. And I figured that I should use something I'm good at into my future career, and engineering involves a lot of math" (Interview 1). Sarah said that she does not enjoy writing; in particular, she said that she does not like the page-length expectations or the constraints of writing prompts (though she said she is currently enjoying Dagney's course). To this end, Sarah suggests that she chose Dagney's class because it offered writing freedom, and she also wanted to improve her writing skills and confidence. Before using Canvas, Sarah recalls using Google Classroom as her learning management system. She primarily uses Google Docs as her composing space, and interestingly, she indicates that she is more adept at using a cell phone than she is a computer. Sarah said, "I

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just have trouble sometimes getting into certain websites in laptops and computers. I'm not really good at working laptops or computers" (Interview 1).

Paul is a graduate student instructor who teaches the first-year composition course for literature. Before coming to this institution, he pursued a major in mathematics. Paul's approach to teaching and communicating with his students is one that appears to be based stringently on consistency and grades. To this end, he uses Modules in Canvas to display not only every formative and summative assignment but also every aspect of daily participation (including quizzes), most of which are not populated with instruction or description. His purpose for displaying everything in this way, he tells me, is to ensure that students see everything up front and know how they are doing during the semester. Paul said that he likes to teach close reading and argumentative analysis, and his content and course site are organized around these genres. Like Gary, his approach to technology is minimal; while he maps out everything that students will do via Modules, most of his pedagogy is analog (that is, deployed via the syllabus and in class discussions). Paul uses Announcements for clarifying important points about assignments, as well as for assuaging fears that he senses from his students during class.

The first student in Paul's class is Rachel, who is interested in pursuing a pre-med track and perhaps majoring in cellular biology. I learned that Rachel's interest in this field is related to research that she did as a high school student. She is taking Paul's class because it is a requirement and because she needs to fulfill a first-year requirement in order to apply for a prestigious undergraduate program in the School of Business. Rachel said that she does not *dislike* writing, but that it is more difficult to write about things which do not interest her. She tends to like "scientific and technical writing because it's very straightforward and clear cut. So it's like you don't have to talk about all the metaphorical and philosophical aspects, which gets

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kind of ... I know it's a lot" (Interview 1). Before using Canvas, Rachel recalls using a management system called LaunchPad. She talks about using Google Drive and Microsoft Word as her primary composing spaces. She said, "[L]ike laptops, super convenient, everything's stored all in one place, and so I have my Google drive and then Microsoft office and then I just submit" (Interview 1). Rachel said that, aside from writing research papers, she does not do any outside writing.

Iris, the second student in Paul's class, is interested in pursuing a degree in psychology, perhaps coupled with education. She explains that she is interested in these fields because she wants to work with children: "And so I thought psychology, which always also interested me with developmental areas, would be a good way to connect the two things that I'm interested in" (Interview 1). Iris said that she likes writing, though, like Sarah, indicates a challenge with writing prompts. Iris goes on to note, "When they confine you to a certain prompt it's hard to stay within that, especially with all the ideas that might come up. It's hard to stay on track with work, yeah" (Interview 1). Also like Sarah, she said that she is taking Paul's class (which she also notes is a requirement) because she wants to improve her writing. Iris has prior experience with Canvas and with another learning management system called Edmoto. In terms of outside writing, Iris said that she texts and talks with her friends over social media.

Peter, the third student in Paul's class, is a computer science major. He said that he has been "surrounded by computers all [his] life" (Interview 1). He is also considering other avenues, such as business. Peter said that writing can be fun, but that he prefers writing that is not related to reading. As Peter explains, "Actually, reading in conjunction with writing, sometimes is not that fun for me. Like analysis in terms of like analysis, it's like, eh, kind of borderline" (Interview 1). He is taking Paul's class because he thought the theme was interesting and because it fit into

his schedule. Peter said that he uses Google Docs as his primary composing space because, as he puts it, he got used to writing in this space. Before using Canvas, he recalls using Moodle and Google Classroom as his learning management systems. Outside of class, Peter does not express much interest in writing, though we talked briefly about the possibilities of writing in computer programming. Peter explains that "[writing in programming] would basically involve explaining what you're trying to do or more explicit things rather than analysis or things you have to interpret" (Interview 1).

Statement of Positionality

I am a writing instructor. I learned how to be a writing instructor during my master's degree in English at the University of Alaska Anchorage, where I first encountered the term *social constructivism* (e.g., Palincsar, 1998; McKinley, 2015), or the idea we communicate and build knowledge socially. This term would come to guide my teaching and grading philosophies for years (that is, before I immersed myself fully in the digital world and fancied myself a *social connectivist* for a while); I believed that the classroom was a space designed for building knowledge and that each of my students had something meaningful to contribute or to build from others. This philosophy also changed my grading practices over time—from relying on quiz and participation scores to show that students were mastering material to trusting in the writing process to show instead *what* students were getting out of the experience. I also formally trained to teach online during this time, where I encountered concepts such as *understanding by design* (e.g., Wiggins & McTighe, 2011) and the *community of inquiry* framework (e.g., Garrison, Anderson, & Archer, 2000; Garrison & Arbaugh, 2007), from which I learned how to begin to build online courses from large ideas and assessments and how to enact various kinds of

presence in the absence of a physical classroom. I have not taught online in a few years, but these principles still guide how I build and conduct even face-to-face course sites in Canvas: keeping things simple, organized, and useful. I take pride in the uniqueness and vigor of my teacher training, but in looking back at my research data, I struggle to put into perspective my criticism of what participants did with Canvas—and in their classes. Perhaps this dissertation was an opportunity to let go of my version of writing instruction. Perhaps this is an opportunity to consider how a social constructivist or connectivist would respond.

I am a researcher. I struggle with this role because, in many ways, I often do not believe it. Thanks to my collaborative work with friends in the program, however, I have learned to value the *process* of research (as well as the process of writing—an important node in this dissertation), but I still struggle to feel that my own thinking is a critical component of that process. Looking back on my dissertation, my greatest challenge as a researcher is feeling authorized to speak on behalf of my participants; I struggled particularly with speaking on behalf of my instructor participants because, like me, they are graduate students and because I share a kinship with them through writing instruction. This closeness also raises ethical questions about my presence and proximity in this research project. My instructor and student participants emphatically agreed to participate in my study, but in reflecting upon my data, I was worried about how my presence as a researcher may have influenced their responses and reactions (Hesse-Biber, 2017); I recognize that I brought a particular ethos and power to these interviews, particularly for student participants, and so I must consider which answers were genuine and which were things they thought I wanted to hear. I also worried about how my presence, or "lurking" (Eysenbach & Till, 2001), in Canvas course sites may have influenced these interviews. For instructor participants, I worry about how my presence in Canvas may have made

them self-conscious about their design decisions and that they changed their course sites in response to our interviews. While these ethical considerations are foremost in my mind, this dissertation was perhaps an opportunity for me to trust in my participants a little more—to treat them, as one English professor at my institution said, as "their own theorists."

I am a user of technology. I find computers, machines, and gadgets endlessly fascinating, and although I am by no means an *expert* of technology, it is nonetheless an important part of my teaching and research. I have experienced a range of productive failures with technology, which have informed the way I build course sites in Canvas. I have learned, for example, that bells and whistles do not an effective course make; overloading students with apps, webpages, information, and features can frustrate the learning experience and can, in fact, create a detachment from work (Sandoval-Reyes et al., 2019). When I observed instructors overloading their course sites with information, I often thought back to moments in which I created videos that my students did not watch or when students asked me where particular resources were even when I thought I organized everything correctly. To this end, I have also incorporated principles of accessibility into my view of technology, particularly *universal design* (Edyburn, 2005; Dolmage, 2005), which builds accessibility from the ground up rather than as an add-on or retrofit. This view became particularly dominant when I observed one instructor, Dagney, who made resources and assignments multiply available to students in her course site; this in part created an unfair standard by which I judged the other two course sites, which were not robust in the same way. In Gary and Paul's course sites, I became concerned about consistency and accessibility when tools suddenly changed or tapered off; I had to remind myself that Gary and Paul had good pedagogical reasons for these changes. Such moments might remind us all to

consider a less-is-more philosophy and to see more simply designed course sites as equitably useful for students.

I feel that my writing instructor role has been more influential in terms of the way I have been viewing and interpreting this experience—for better and for worse. As a writing instructor, I recognize that I have biases and emotional investments in how I think Canvas should be used (as well as how it *should not* be used), and I have tried very hard to resist these feelings throughout the study. One thing that I have noticed between all three instructor participants is that they use Modules to organize their content; this is an approach that I intensely approve of because this is the way that I do things in Canvas and something that I believe is helpful for students. This is the easiest part of my positionality to deal with because it does not challenge my notions of organization in Canvas. Where I run into trouble is when instructors do not post thorough instructions (or no instructions) in Canvas. I feel that, even if one posts instructions in the syllabus and in the assignment sheets that they should do so in Canvas for *accessibility reasons*; rather than view a lack of instructions in Canvas as a deficiency, however, this project has taught me to think more purposefully about instructors' intentionality. That is, an instructor who does not build text or content into their Canvas course sites may have good reasons for doing so.

Finally, I have that writing instructors do not have to use Canvas (or use any LMS, for that matter), but I have found that much of my own perspective as an instructor has been centered around Canvas and other LMSs—to the point that I consider them part of my teaching. In this dissertation, I touch upon *technological determinism* a lot, and I have certainly found myself being deterministic at several junctures throughout this process. As a user of technology, I have shifted much of my work to also take stock of how Canvas may be playing a larger role in

the decisions of instructors as well as how students are engaging in it. I think that instructors who choose not to use features in Canvas may be resisting its influence in useful ways (and in ways that I was not seeing). I also think that Canvas is leading instructors to make decisions based on its template and its default offering of tools. I often wonder to what extent Canvas's template might be encouraging students to think that it does nothing for their learning or writing. That some students do not see the benefit of platforms such as Canvas in their writing and learning is a significant part of this discussion, as well.

As a graduate instructor at my former institution, I had the unique opportunity to understand the role of learning management systems by taking a course in online pedagogy. While we learned about a range of methods for teaching writing online, we also became intimately familiar with the components and tools of the Blackboard learning management system. Our summative assessment for the course was to build a Blackboard course shell for an online course that we would teach after that semester. Before this course, I had a fairly intermediate understanding of how to use Blackboard, but studying online pedagogy helped to concretize what some of the best tools were, as well as what the best practices were for using them. Looking back on this experience, I wonder what my onboarding to teaching via learning management systems would have looked like had I not taken this course. I imagine that I would have managed through trial and error or by modelling the practices of my colleagues and professors; in fact, I imagine that I would have leaned into the expertise and goodwill of people around me rather than seek out training sessions or other professional development opportunities.

I also want to reflect upon the differences in context between my experience and the experiences of my participants. One of the primary differences is department size. As I mentioned, this institution may have specific training priorities for new graduate instructors, but

perhaps the major factor governing these priorities is the large size of the program. The writing program administrator has a large number of students to train, and only has brief windows at the beginning of spring and the beginning of fall to do so; a larger teaching support unit offers an overview training semesterly but can only cover the essentials as students have a large range of topics to cover in a few days. At my former institution, our writing program was smaller and far more hands-on, and so part of our writing instructor training involved building content into Blackboard from the outset. Another significant difference is investment in digital resources. At this institution, the writing program is housed within an English department that focuses heavily on literary studies; that is not to say that digital resources are not accessible because of this, but it may be a contributing factor to the lack of investment in Canvas. The English department at my former institution had a center for tutoring digital composition (a responsibility that was part of our first semester as graduate instructors), evidencing a strong focus on multimodal composition and the use of digital tools and spaces. I recall spending much of my time fiddling with my course site in Canvas in this space while I tutored students. I say all this to posit that what instructors do with Canvas may be closely related to instructor and departmental investments in technology. If departments do not spend as much time on the available technologies for teaching, then it becomes incumbent upon new teachers to seek out their own resources for learning Canvas—and some of them, I suspect may not bother seeking professional development opportunities when they can ask their peers or mentors.

Looking Ahead

In the next chapter, I look to how my instructor participants have imagined and used Canvas as an extension of their classrooms and pedagogies. As I learned through interviews and

course site observations, how writing instructors learn to use (or to be fair, are socialized into using) Canvas has an impact on the choices of tools they use and the means by which they display their pedagogical content and resources. I also learned that writing instructors extend various kinds of values—that is to say, behaviors and learning styles—through the organizational and tool choices they make in Canvas. As I discuss in Chapter 4, student engagement becomes the other half of this image: if instructors' design and organizational decisions extend the pedagogical network outward, then the decisions that students make in response to, because of, or even in spite of their instructors' extensions form the walls and exterior features—thereby bounding the extension.

Chapter 3: (Re)Imagining Canvas as an Extension of the Classroom

In conversations with my instructor participants, I learned that their uses of Canvas are not simply tethered to the content of their classrooms; rather, these uses are reflective of the ways in which they perceive their classroom communities, teaching philosophies, expectations for student success, and, indeed, their own teaching presences and personalities. I observed these values and behaviors in their course sites, and my reading and coding of the interview transcripts also undergirded such moments. However, it was not until I sat down to write this chapter that I realized—in the ways that my instructor participants designed, wrote, and organized their course sites—that these values and behaviors took on a life of their own outside of the physical classroom space—that they were *extensions* of the ontological and epistemological dimensions of the writing classroom. In other words, I discovered that, even if writing instructors only believe that they use spaces such as Canvas only as tools and repositories, *how* they use them may provide additional insights into their writing pedagogies, as well as the personal and ideological stakes they take in using such technology. *Extension* may help writing and digital scholars understand the ways in which writing instructors broaden their students' writing networks, but more importantly, this term may also help us understand the overlaps (perhaps where these extensions are most useful) and divergences (where these extensions are not as useful or moot) between writing pedagogy and student learning in Canvas.

But what does extension mean? From a purely technological perspective, we might consider the ways in our communication devices perform extension: our phones can extend a conversation from one user to another, while email can extend conversations from one user to

many. We might also consider how extension creates more or additional space. For example, if an instructor brings up a website in class, they might perform extension by linking it in an Announcement on Canvas, thereby creating an additional space. However, from an ontological perspective, extension might account for ways in which users variously inhabit analog and digital spaces; that is, a writing instructor who takes a community approach in the physical classroom might also do so vis-à-vis their tone in writing Announcements and Assignments on Canvas. From an epistemological perspective, extension might suggest where additional insights and knowledge about a particular writing skill might exist in an LMS. For example, a writing instructor who uses Announcements to clarify or offer additional examples of citation practices may be extending student thinking of this writing skill outside of the classroom.

The idea of extension began to coalesce in my first interview with Gary, who explained that Canvas feels like "an obvious and direct *extension* of the classroom, from [his] perspective" (Interview 1, my emphasis). Gary goes on to explain that, in addition to distributing important class documents, Canvas allows him to preview important questions for class and for his students' reading. As he said, "[Canvas] feels like it's part of the classroom in a way that email feels detached" (Interview 1). In other words, Canvas allows Gary to communicate with his students and direct them to resources and additional insights outside of the classroom; by offering these things via his course site, Gary is effectively extending the reach of his teaching, and as I sat with this idea of extension, I realized that the same was true for my other instructor participants, Dagney and Paul. Whether they populate their course sites with text and links, or they opt for a more minimalist approach—or, indeed, hardly anything at all—I nevertheless identified moments of extension in their uses, rationales, and imaginations of Canvas.

Roadmap of the Chapter

In this chapter, I explore the various ways in which writing instructors imagine and use Canvas as an extension of their classrooms. First, I discuss the pedagogical approaches that my instructor participants used in their deployments of Canvas, as well as how they *learned* to use Canvas from their peers and mentors. Next, I delineate the moments in which my instructor participants used extension to build community to create structure for their students: they used Announcements for extending classroom community, Discussions for extending the social learning experience, Assignments and Collaborations for extending writing expectations, and Modules for extending student accountability. Finally, I reflect on some of the takeaways for technology and pedagogy—namely, how my instructor participants' experiences might speak usefully to values of using technology like Canvas in the classroom. As I found, instructors have a markedly different view of how Canvas functions in relation to the classroom, and understanding these views can help writing and digital scholars consider how students engage in response to—and perhaps in *spite* of—these extensions, as I discuss in the next chapter.

Pedagogical Approaches to Using Canvas

One curious difference between writing instructors and students in this study is their approaches to using Canvas, and to a similar degree, how they *learn* to use Canvas. As I argue in Chapter 4, college students appear to be socialized into using LMSs because it is often part of their high school experiences, as well. However, while writing instructors may have had exposure to Canvas and other LMSs prior to this study, my sense is that for many writing programs, no specific structure exists for teaching new instructors how to use Canvas. Rather, as my instructor participants indicated, they would observe and model what their own professors

did with Canvas and try it for themselves, as Gary and Dagney did, or, in the entrepreneurial spirit, they would seek point people and resources on their own, as Paul did. Perhaps the reason why writing programs do not take LMSs such as Canvas more seriously in their pedagogical training is because they view them as a means to an end rather than as critical components of writing pedagogy. Writing instructors in this study suggest that it is important to examine the role of Canvas in writing pedagogy, not only in terms of how pedagogical content is deployed but also in terms of how writing instructors envision the function of their course sites beyond the physical classroom space. Probing at the relationship between these two spaces can help writing and digital scholars better understand how LMSs such as Canvas can extend the teaching experience—including instructors' teaching styles, preferences, and personalities. In this way, we can also better understand the ways in which instructors shape the technologies they use in their classrooms as a reflection of their practices and learning goals for their students.

How Writing Instructors (Don't) Train to Use Canvas

I want to begin this section by writing about how the writing instructors of this study come into using Canvas. As I mentioned, they had no formal training for Canvas, which is not surprising for two reasons: (1) the department is responsible for training a large number of new graduate student instructors every year, which limits the time and energy that WPAs and mentors can spend on topics such as technology, and (2) unlike other departments, writing programs tend to offer more choice and customizability when it comes to course design, and so it may be difficult to come to a consensus for best practices with Canvas when the courses themselves range widely in approach and materials. When I asked Paul about formal training for Canvas, he affirmed emphatically, "This program doesn't do that. I'm a novice when you do this stuff. There

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is no training" (Interview 1). Paul went on to explain that he reached out to a person in the department, Rick, to help him set up his Canvas course site: "[T]here is a really kind person, I think his name is Rick… [O]ver the summer before I taught my first course, I met with him several times to get a mini course on how to use Canvas effectively" (Interview 1). In my own experience as an instructional consultant, I learned that other units took up the mantle of training instructors how to use Canvas; such training was announced and proliferated through weekly emails, and, throughout the pandemic as instructors sought methods for teaching online, through Canvas itself. What is interesting is that, pre-pandemic, none of these instructors sought out resources in other units, opting instead for trial and error, learning from others in the department, or adopting approaches they viewed from professors they respect. In a department that imbues its graduate instructors with an ethos of independence (the "instructor of record"), it is perhaps not surprising that learning how to use Canvas independent of the typical training program might simply be part of learning how to teach writing.

In many ways, the course sites I observed largely reflect what these writing instructors learned from mentors and from what they learned by simply playing around with Canvas features on their own. For example, Dagney remarked that she "had already sort of played around with it and felt comfortable enough that [she] could accomplish the goals that [she] had. And so [she] sort of opted for self-training, because [she] thought that Canvas seemed relatively intuitive to [her]" (Interview 1). In a later interview, Dagney also shared that she learned about her approach to ungrading (she articulated this term as choosing to hide the grading feature in Canvas) from a faculty member in a disability studies class. Gary shared that he employed a thematic approach to Modules because he liked the way a faculty member in education did it when he took a class with her; he noted, "Watching the way that [she] used Modules in a course I took with her, and

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the way that she used slides and modules together to pace ... to control the pace of the class in both the ... like micro within one class period, macro over a time period. That was really helpful for me to see" (Interview 1). While Paul arguably had the most direct "training" of the three, each instructor participant sought their own way into Canvas rather than seeking professional development through the writing program.

Also interesting is how the instructor participants articulated the purpose for Canvas in their pedagogies, adding texture to the idea of extending the classroom by understanding its role(s) in their teaching. For Paul and Dagney, the guiding philosophy behind using Canvas pertained to encouraging students to understand what they needed to do on their own—outside of the classroom—but in different ways. For Paul, Canvas "eliminates the reliance on [him] quite often, effectively. Having to ask [him] for things or if they need to reprint something, a syllabus or something like that. [He] just avoids a lot of silly questions or just details about the course because it's all available for them" (Interview 1). Although Dagney's course site was significantly more involved, she adopted a similar approach (and, indeed, a rationale behind its robustness); she wished to not only "streamline" the process for her students but also ease up once she felt her students were more synchronized to the rhythm of the course site: "And later in the semester, I have a feeling that I will do less of that, showing every single announcement as it comes up, as students know this is how it works" (Interview 1). For Gary, the idea was more about remaining tethered to the classroom; as Gary notes, "The fact that I'm able to continually address them in ways that I would address them within our classroom is powerful and helpful, and that's why I appreciate having those what I call informal means of addressing the class [through] Canvas" (Interview 1). Thus, for Paul and Dagney, Canvas appeared to reiterate their

instruction such that students become less reliant on them (e.g., asking clarifying questions), whereas for Gary, Canvas seemed to sustain the classroom community.

How Writing Instructors Use Canvas

I found that this ethos of independence was also at work in writing instructors' pedagogical approaches to using Canvas. In my conversations with Gary, the instructor participant who offered the most direct example of extension, I learned that his approach to teaching and communicating with his students is open-ended and formal. As he explained, he prefers assignments that "give students a chance to do research and writing about topics that engage *them*" (Interview 1, my emphasis). Gary's pedagogical goal for students was for them to understand the varying nature of rhetorical situations, including how to engage with them in flexible ways. To this end, his course content, also reflected in his organization of Modules on Canvas, was separated into three themes: *who we write for*, *what they (readers) need to know*, and *how we make it matter* (he also designed a unit-zero Module themed around *why we write*). Gary's approach to technology was one of simplicity and trial and error, and so, not surprisingly, his course site in Canvas was relatively simple and efficient. He made use of very few tools and functions in Canvas, opting instead for in-person guidance for his students during class and via office hours. As he revealed in the first interview, Gary was willing to try (and change up or abandon altogether) technologies as was appropriate for his students' needs. One constant, however, is his iPad, which he uses to deploy his instruction through Canvas and in the classroom; given the software constraints of this device, I imagine that his use of it might translate into a simpler approach with Canvas, as well.

In my initial observations of Gary's course site, I learned that, while minimalist in nature, his design and writing throughout the course site was often pithy and intentional. He kept his readings and assessments grouped under each theme in Modules, and like Paul, Gary appeared to use the classroom space for writing instruction more than he would Canvas, though his communication in Canvas often did extend classroom discussions by offering additional insights or tips for reading and writing. Gary also asked students to use Canvas tools in class as part of a quick-write exercise at the beginning of each class; at the beginning of the semester, Gary used Quizzes for this activity, but then switched to the Collaborations function (essentially, Google Docs) shortly after. As Gary explained, he made this change because he was concerned about the connotations that the word "quiz" would have for students, suggesting it would detract from the freedom of the quick-write experience. Even though Gary made this switch sound fairly seamless, as I expound in Chapter 4, Gary's students appeared to have mixed reactions about this change. Further, while Gary articulated Collaborations as a tool within Canvas, his students appeared to only recognize it as Google Docs (outside of Canvas), which painted their experiences of the quick-write activity differently—and ironically so, considering Collaborations makes Google Docs a literal *extension* in this regard.

In my conversations with Dagney, I learned that her approach to teaching and communicating with her students was steeped in socializing and democratizing learning. As Dagney explained, her pedagogical goals center the importance of positionality and identity in reading and writing. Of the three instructor participants, Dagney taught assignments that most closely align with the templates given to incoming graduate student instructors in this program: a literacy narrative, a rhetorical analysis, a Rogerian argument (perhaps a modified version of the research-based argument), and a multimodal assignment. I also learned from these conversations

and my embedded observations in her course site that her approach to technology was one of structure and guidance. Dagney used Announcements, for example, to preview the readings and tasks that she asked her students to complete before each class; she also wrote her assignment instructions in detailed, structured ways (often including color coding, chunking, and hyperlinks to relevant materials elsewhere in the course site). I also observed two unique features in Dagney's course site: (1) she used the Discussions features to have students engage in idea generation in ways that they could see, and (2) she hid the Grades function (a decision that she and her students made at the beginning of the semester in order to focus more on the writing).

I found two other things striking in my observations of Discussions in Dagney's course site. First, although Dagney posted more Discussions prompts than did the other two instructor participants, I observed more of these posts toward the end of the course, which culminated into the multimodal argument unit. As a feature of extension, Dagney's discussion board prompted provide additional student engagement beyond the classroom space to brainstorm and test out ideas for their multimodal assignments, and so I wondered why Dagney did not employ this approach with the other unit assessments. Second, while most other writing assignments on Canvas (and, indeed, discussion board posts to the extent that students are only in the space long enough to post and/or reply) are often conceived of as solitary exercises, Dagney's Discussions prompts made the work that students posted visible to all. As I discuss in Chapter 4, while students in Dagney's class indicated that this caused some nervousness, they did find it useful, or at least saw the utility, of seeing what their peers were doing. This observation raised questions about the publicness of writing in digital spaces; while Paul and Gary did not enact this idea in their own course sites, Dagney appeared to use Canvas in ways that open up and socialize her

students' use, and as I gathered from our conversations, this openness seemed to be present in her classroom space, as well.

But how might writing instructors' approaches to Canvas be different if they do not hail from a composition and rhetoric background? I was particularly interested in interviewing Paul because I wanted to learn more about how his background in literature (and, as I discovered in the first interview, his background in mathematics) might have informed his use of Canvas. In my conversations with him, I learned that his approach to teaching and communicating with students was one that encompasses consistency and progress. To this end, Paul used Modules to display not only every formative and summative assessment but also all aspects of daily participation (including in-class quizzes), though he rarely ever populated these items with instructive or descriptive text. As Paul suggested, his purpose for displaying everything in this way was to ensure that his students saw everything up front and knew how they were doing in the course at all times. Paul explained that he likes to teach close reading and argumentative analysis assignments, and that his course site was similarly organized around these writing genres. Like Gary, Paul's approach to Canvas was minimal; while he mapped out everything that students will do via Modules, most of his pedagogy appeared to be analog (that, deployed via the syllabus, in paper materials, and in class discussions). I also learned that Paul uses Announcements to clarify important points about assignments, post updates or changes, and assuage fears and anxieties that he sensed from his students during class.

Paul's course site was interesting because of what was not there—I want to stress that this does not represent a deficit, but rather signals an intentionality about the role that Paul wants Canvas to play in his students' writing networks. For Paul, it would appear that classroom conversation and engagement were important for his teaching, and that his Canvas course site

was an extension for the structure of the course and nothing more. Indeed, in my observations of his course site, I noted that most of the assessments he posted in Modules are placeholders for students' scores, and while students appeared to be able to submit things through Canvas, assignment submission did not appear to be the primary purpose. Also notable was that everything that had a grade attached was listed individually and in chronological order. This particular approach raised questions around how LMSs such as Canvas can be (re)purposed to track student progress, though I did wonder if this was more to the benefit of the students or to the instructor. Most of what he wrote to students in Canvas was relegated to Announcements and to the paper materials of the course; I observed that he used the Announcements space most as a means to follow up on classroom discussions. During my observations, I did not discover much outside of this correspondence or the design of the course site overall, and so I learned more about Paul's course site from my conversations with him and the student participants in his course.

What Paul's approach to Canvas suggests is that LMSs can mirror or map (partial) structures of learning that tend to be more visible in physical classroom spaces. That is to say, while the specific classroom discussions and instructional materials were not visible in Canvas, their blueprint (e.g., the assignment names and point values) were. As I discuss later on in this chapter and in Chapter 4, this approach may raise questions of alignment and clarification where students are concerned, but it is clear that Paul's use of Canvas suggests a desire to communicate structure and order outside the classroom. While Gary's approach is somewhat similar in terms of minimalism, it suggests that adopting a less-is-more approach can be useful in cases where writing instructors use smart devices or require technological nimbleness so that they can easily switch between tools. Dagney's approach, arguably the most dynamic, suggests that more

content can be useful provided that is structured in ways that ease the reading experience and keep students tethered to the learning experience. As I argue in Chapter 4, Dagney's students do not agree with everything she built into their Canvas course site, but they recognize that other students might benefit from being able to access information in multiple ways. As writing and digital scholars think more about the role of LMSs in writing classrooms, it is important to consider how instructors' approaches—including their guiding philosophies for teaching with technology—shape their course sites *and* their students' writing and learning experiences.

Extension as Community Building

Although my instructor participants took on similar approaches in the Canvas course sites (e.g., using Modules to organize assessments, texts, and resources thematically), their methods and motivations for extending their pedagogies beyond the classroom differed slightly. I distilled my instructor participants' experiences into two major themes: community building and creating structure. I define community building in the context of extension as modeling classroom and writing behaviors *in* Canvas. For example, Dagney employed the Discussions feature as a means of creating space for brainstorming and idea generation outside of the classroom, but more importantly, she extended space for students to learn from one another. My instructor participants also used Announcements as a means of extending classroom conversations in unique ways, though Gary tended to use this tool to sustain community beyond the classroom. In the subsections that follow, I highlight instructor participants' use of Announcements and Discussions in the pursuit of building community beyond the physical classroom space.

Announcements as Extension of Classroom Community

Another common feature of LMSs such as Canvas is Announcements, which allow instructors to send out correspondence to their students should something critical come up in class (e.g., changes in assignments, common questions). As I have learned in my capacity as an instructor, however, Announcements can also be spaces to help regulate some of the emotional and social challenges that come with being a college student; for example, in the writing classroom, drafting essays can take up much of a student's time—and can often be solitary tasks—and so Announcements can provide ways of inviting further discussion about assignments, offering additional advice and resources for success, and extending expressions of goodwill and encouragement that are often visible in the classroom community. Announcements can also provide additional structure (e.g., information about assignments and tasks) to help keep students tethered to the flow and schedule of the class. In conversations with my instructor participants, I heard them mention many of these uses for Announcements, and I was not surprised when I also observed this kind of community-kindling occurring in their tones, structures, and word choices. For example, I observed that Paul would often use Announcements to extend support and encouragement to his students, particularly around what he perceived to be moments of difficulty, while Dagney and Gary would use this space to provide additional structure and resources for writing and reading.

Paul made use of Announcements often, and I observed that he wrote them in letter style, and his tone for each announcement tended to be formal and warm. Perhaps unique from the other instructor participants, Paul tended to address his students in announcements with "Dear class," and he ended his announcements with "Best,". In our conversations, Paul acknowledged that the material for the course is sometimes challenging, and through his tone, he appeared to address student anxieties as they came up in class or anticipate moments in the readings or

writing assignments they have might experience the most challenge. One of the things I instantly

gravitated to is the ordered list of items, which may indicate that Paul is more task-based in his

approach to delivering instructions; a numbered list may not indicate a specific order, but it does

indicate that he has very discrete things that he wanted his students to pay attention to. For

example, in the announcement titled "First Day Notes," Paul used this unordered list structure to

debrief and then add additional context for the first day of class. This pattern seemed to hold true

in other kinds of announcements. For example, in the announcement titled "Assignment

Sheet+Example+Close Reading Advice," Paul wrote three numbered items in accordance with

the announcement titles, while in another announcement titled "Entertaining Iliad Summary,"

Paul embedded (and provides a hyperlink for) a video clip about *The Iliad* from YouTube.

Overall, the content of his announcements ranged from reaching out to students and saying hello

before the start of the semester, to reminding to students about readings, to debriefing class

sessions. As Paul explained, "I think I've already discussed [this] with you, but I just use the

Announcements thing way too much, but it allows me to constantly change my course or address

things that happened that day or alleviate fears." (Interview 1). Paul's particular approach to

Announcements suggests that he not only wanted his students to follow a specific path for

writing but also wanted to provide support for the more difficult parts of it.

When I spoke with Dagney, I learned that she made use of Announcements frequently in

the course site to keep her students tethered to the movement of the course (i.e., what is due for

the class, what *actions* students need to take). Announcements are organized by class date and

are used to remind students of what they need to do by the next class session. In most cases, the

announcements would pertain to class tasks, but some of the announcements would have a

horizontal line and additional information for peer review groups and other resources. Dagney

had a very specific structure for the way she wrote announcements; for instance, she would begin by writing, "For [insert date here], please [do the following]." This introduction would typically be followed by a bulleted list; each item in this list will begin with a **bolded verb**, such as read, upload, print, listen, or bring. In some cases, Dagney would also link to the related assignment prompt or assignment space. Sometimes, she will put in a horizontal line and provide additional resources below it, such as the peer review groups or additional linked resources: "I often put details in the announcements. So like by the way, if you're thinking about this, here's another link. So for example, in one of the announcements, there was a link to the punctuation guide" (Interview 3). My sense, in speaking with Dagney and observing her course site on Canvas is that students could very well have only needed to look at the announcements and get everything they needed from the course. As I explain elsewhere, Dagney operated from the perspective of access; in the same way an instructor might provide handouts and other materials in class to fortify in-class discussions about writing, Dagney also appears to use Announcements in order to provide everything her students need to be successful—even if they do not need them at all.

In my conversations with Gary, I learned more about how he perceived Announcements in his course site: "I try and use announcements and available moments in class to emphasize I do writing, writing happens in a lot of different ways, so I'm always happy to talk about writing that is not just for my class" (Interview 2). Gary's announcements ranged from reminders about office hours (since the locations tends to shift), to reminders about conferences, to reminders about tasks and assignments. For the most part, these announcements were short and to the point, and most of them contained additional (and often optional) reading or bigger-picture thinking and a brief message inviting students to his office hours locations. Gary's announcements also tended to provide further instruction or advice about something related to students' writing and

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learning. For example, in the announcement titled "Office Hours and Citation Formats," Gary provided an additional comment about citations for papers; however, rather than writing detailed information as the other instructors might, Gary provided a succinct "takeaway" about citations. Here, Gary seemed to be more invested in the idea that students adopt a practice of citation rather than a specific citation practice. . In another announcement titled, "Guiding Questions for 'The Case for Reparations,'" Gary provided advice—not concrete instruction, but things that students *might* think about as they are reading this piece. Perhaps for instructors like Gary, Announcements extends his presence in the classroom community by sharing the things that he himself finds useful for reading and writing and inviting his students to share in these resources.

Discussions as Extension of Shared Learning

Discussion boards are arguably one of the most prominent features of LMSs such as Canvas, And although they are often the bread and butter of online courses, many instructors in F2F courses use them to extend discussions of text, homework, and classroom dialogue beyond the physical classroom space. As a student and an instructor, I have found that discussion boards often comprise busywork (e.g., students make an original post and respond to two or so of their peers' posts in an effort to "engage") and do little to take the learning that students do in class further. Thus, when I first investigated Dagney and Paul's use of the Discussions tool in Canvas, I was curious about how (and how often) they were using it. Paul only used Discussions at the beginning of the semester for putting students into contact with one another and for practicing close reading, and, given his students' generally positive response to the latter activity in Chapter 4, I wondered how this space might have facilitated other kinds of writing practice throughout the semester. And for Dagney, who did not really use Discussions until the later part of the

semester, this space seemed to extend the spirit of collaboration and accessibility that she centers in her physical classroom experience. Nevertheless, both writing instructors used Discussions in ways that counter the typical use, which is important to consider in thinking about making such spaces productive for writing beyond the classroom.

When I observed Dagney's course site, I was surprised to learn how differently she and her students were using the space: for brainstorming and socializing learning. As Dagney explained, "[The discussion board] was… for the brainstorming component so that if students were stuck and like, 'I'm not completely sure what I want to do,' that they could maybe wait a few hours and see if another student replied first." (Interview 3). By the end of the study, Dagney's discussion boards contained seven threads, six of them related to idea generation and planning and the final one is the space related to students' multimodal projects. In her threads, Dagney made use of bulleted lists, bolding, and italicization in writing her instructions for what to do in these discussions. She also often created hyperlinks to assignment prompts and provides examples for how to write (as well as samples that previous students have created). Early on in the study, Dagney expressed some concerns about compromising her students' privacy by making the discussion process open (i.e., allowing students to see what their peers have posted, but also have *their* posts seen by their peers). However, Dagney was adamant about the learning that student can do through the Discussions function in Canvas:

> So I especially think that the discussions feature does have a more direct impact on developing their skills. And so one of the sort of themes of my class is that writing is a social activity, and that's why we do workshopping. And so some assignments I have them post, especially preliminary ideas for an essay, I'll have them post it in a discussion. And I encourage them to take a look at how other people are conceptualizing this. (Dagney, Interview 1)

Later on in the study, Dagney indicated that "[she] prefers discussion because I like[s] students to be able to see what [and] how other students are thinking" (Interview 3). In this way, one might argue that Dagney used the Discussions function of Canvas to extend the collective learning that her students might do in their physical classroom into this digital space. Opening the space for all students to see one another's discussion posts might also extend notions of modeling and learning from others' examples in the physical classroom by "encouraging [students] to take a look at how other people are conceptualizing" their assignments.

Most of Dagney's Discussions prompts appeared to consistently serve these ends, and her language and structure in the prompts not only extended this kind of collective learning but also created additional access via resources and internal linking. Even when I observed the prompt for the first discussion thread, I noted how Dagney provided the assignment sheet to give students context for their brainstorming, and then specific instructions (with a model of bullet points and a description of what goes in each bullet). Here, the students were to begin brainstorming their topics for their Literacy Narrative; Dagney's rationale for students posting to this common space is so that they could see others' ideas and be inspired by them. Dagney then provided a list of resources for MLA, APA, and Chicago format. For what I could see, students produced a bulleted list similar to what Dagney had modeled, though a few students provided additional outlining or their own approach to the bulleted list. . When I looked at the "Literacy Narrative Partial Draft," assignment, I noted that Dagney provided not only a link to the prompt for the writing assignment but a link to the brainstorming work that they did in the discussion board. As I learned from my student participants in Chapter 4, brainstorming in such an open space where others could see their work caused a little personal anxiety, but was nevertheless useful. That Dagney was doing so much work to make *connections* between students' writing experiences

further extends the values of access and collective learning that she indicated were part of her teaching philosophy.

Paul's course site, on the other hand, only had two discussion board posts. The first discussion was for matching partners for a class discussion, and only students responded to this thread, which suggested that it was an optional task. The second discussion was is for practicing close reading; as this thread was closed, I could not see the posts students made, but I was able to see that there were 32 responses to this thread. From my initial interview with Paul, I gathered that he was not interested in using the discussion board for much this semester, though interestingly, his purpose for using Discussions for the second activity appeared to align with Dagney's goal of collective learning. As Paul explains,

> I have an activity coming up where it's their first close reading draft. They will upload it to Canvas, which will probably be terrifying for some of them because they're uploading it to the discussion section, instead of just to me. Then, they have to respond to each other by generating one question about how what they said could lead them further or how are they willing to interrogate what this person has said. I think that sort of interactive interface with each other is very useful, and I enjoy having things like that at my disposal. (Interview 1)

Like Dagney, Paul acknowledged the potential anxieties students might have in posting their work for their peers to see. However, it was interesting that Paul asked his students to generate a question about their peers' work; where many discussion boards go no further than simply replying to another person's post, it was fascinating to learn about how Paul could model a critical discussion about literature in a discussion board space. Paul and Dagney's limited use of the Discussions tool suggest that writing instructors can repurpose such spaces and reinforce the thinking and writing that occur in the F2F classroom space.

Extension as Creating Structure

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Another theme that extends aspects of the physical writing classroom into Canvas is *creating structure*. Canvas, as a template and as an agent interacting with students and instructors in various ways, arguably has its own structure in terms of its function as a template and as a set of algorithms, but instructors can, as network-makers, alter existing structures within a course site (e.g., using Quizzes for writing tasks, as Gary did) or create new structures (e.g., using color coding to model peer review practices for papers, as Dagney did). For example, instructor participants would use Assignments in vastly different ways—some, like Dagney, would structure her writing expectations at the sentence and technical levels, while others, like Gary would structure Assignments at a more macro level by surfacing writing themes and goals over other minutiae. And while all three instructor participants used Modules to organize their course content, Paul would use this tool to give his students a view of their progress throughout the class. In the subsections that follow, I explain how instructor participants used Assignments and Modules to extend their expectations and processes for writing into Canvas.

Assignments as Extension of Writing Expectations

Arguably one of the most important features of LMSs is Assignments. Whereas in F2F classrooms, where instructors might disseminate assignment sheets and take in paper copies of assignments from their students, Assignments in Canvas effectively allows instructors do both via the same interface. For instructors who prefer to facilitate assignment preparation and feedback using analog methods, Assignments may serve little purpose for them, or for instructors like Paul, they may simply serve as placeholders in a larger structure of accountability, as I argue later on in the subsection about Modules. Regardless of how much or how little instructors use Assignments, it is clear that they serve as extensions of the expectations they have for writing in

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their physical classroom space. For instructors such as Gary and Dagney, who do populate their assignment spaces with content, I argue that their particular approaches to wording and formatting perhaps model the kinds of approaches to writing they find valuable. Even for instructors such as Paul, perhaps having little or no content in Assignments extends the notion that his students should be looking at the analog materials (e.g., handouts, classroom discussions) to find ways of being successful on their major writing assignments.

In observing Gary's Assignments, I learned that he tended to post less instruction about the higher-stakes assignments than he did general guidance. For example, for the first module (rough draft and final draft), Gary posted one paragraph apiece, each with a link to the digital assignment sheet. This approach raises questions about how his students understood what they needed to write and submit for these assignments; equally interesting might be how much free rein they might thought they had because there was minimal information up front in these spaces. Gary also tended to post more, or at least more *direct*, instruction in the lower-stakes assignments. For example, for "Pre-Writing #1" and "Pre-Writing #2," Gary made use of bolding and numbered lists to direct students' attention to particular things they need to do for these assignments. As Gary explains of his approach to assignment instructions and resources in Canvas:

> I just want big picture, I want like 10,000-foot view, this is what the unit covers. I guess maybe I should be more explicit about this, but I guess that from me it is there because I want the students to understand how the assessment connects to the big picture. If they can't see the connection between the unit's worth of instruction, and the assessment at the end of it, if that is not crystal clear to them, there's an issue, and I don't know if the issue is with my instruction or with them, but I want this to be an opportunity to ask those questions. (Interview 2)

This approach also raises questions about how differently students might understand what they are supposed to do in Canvas based on whether an instructor writes directions holistically or

according to task. In "Reflection #1," for instance, Gary wrote even more instruction, complete with an ordered list of things that students should do, along with sequence words (e.g., "first," "next") to show what order they should happen. Perhaps for instructors like Gary, the focus on the bigger picture, or the "10,000-foot view," as he called it, is the kind of value that they wish to impart to their students in Assignments.

Equally interesting, and unique from the other instructor participants, is that Gary used Collaborations to create writing opportunities for his students. At the beginning of the semester, Gary used the Quizzes function to have his students engage in quick writing exercises at the beginning of class. After the first couple of weeks, however, he switched to Google Docs via Collaborations because he was concerned about how the valence of a "quiz" would affect his students' ability to write. As Gary notes, "So checking out the collaborations is not as easy, but the tradeoff was that vastly increased, I hope, vastly increased sense of student ownership of the Quick Writes" (Interview 2). Collaborations is an interesting space because, while I was unable to view students' specific Google Docs here, Gary made it clear that he had been developing quick writing assignments in this space. Interestingly, in Chapter 4, the students I interviewed said that their quick writing assignments were taking place *outside* of Canvas, so perhaps they were not aware of the connection to Collaborations, nor were they seeing this function as being related to Canvas. Also surprising was that students suggested they liked using the Quizzes function more; Jacob in particular remarked that he liked that the question was there for him and that he did not have to scramble to find his writing they he does in the Google Doc.

I was eager to ask Dagney about her approaches to Assignments, given the precision and consistency of structure throughout her course site. For example, I observed that one assignment, "Peer Review Feedback Letters (Literacy Narrative Partial Draft)," exemplified much of this

structuring. For one thing, Dagney used bulleted lists to break up and differentiate what should

go into the draft and what should go into the letter (Dagney correlated this approach to a

checklist, and her students seem to affirm this idea):

> I like to give a lot, a lot of structure to start towards the end of the semester. I basically, I loosen up on what I require from them for peer reviews. But at the beginning I like it to be highly structured because I think if they're just left to their own devices write some feedback. I think that they're going to resort to paying attention primarily to mechanics or maybe some other kind of like lower order concerns. And so I try to give them some, some really specific guidelines to focus on things that are higher order concerns in writing. And so that's why I provided it like a variety of instructions here. (Interview 2)

Dagney also did two things to point out where students should be paying attention. She

underlined specific things in the draft that she wanted students to take note of and/or highlight

(she also provided color coding to indicate with what colors she wanted students to highlight in

their peers' drafts). She also used bolding to remind students to bring something or to be kind to

the writers, and in most of her assignments, the first half would typically be bulleted, and the

second half would be prose. In Chapter 4, one of her students, Nate, noted that he would be more

likely to pay attention to the bulleted parts than he would the prose, though he also suggested that

there might be a drop-off in reading for the prose.

Perhaps most striking about Dagney's approach to Assignments is that she was thorough

in her explanations, and she made use of a variety of tools and textual devices to highlight

important things or model for students what they should do—this appeared to be a theme no

matter if the assignment is low-stakes or high-stakes. For example, in the "Literacy Narrative

Partial Draft," the Dagney provided instruction for what to bring to class and what to upload in

Canvas by using bolding to emphasize these tasks. She also hyperlinked to the assignment

prompt for context, as well as to the outline discussion thread to encourage students to use what

they have already brainstormed. Dagney used bolding *and* highlighting in the last bullet to

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remind students not to forget to ask three questions about their drafts. In "Peer Review Feedback

Letters," Dagney made use of two bulleted lists to differentiate what should be included in the

hard copy of the draft and what should be included in the letter (the latter of which also contains

a hyperlink to the assignment sheet). Dagney also modeled what colors should be used to

highlight various things in a peer's draft by using those highlight colors in the prompt. As I have

explained elsewhere, Dagney had no expectation that her students would read everything she

wrote, so perhaps, in her view, a guided approach with formatting helps students to pay more

attention to the larger-order items in writing. For writing and digital studies scholars, the

document and digital space creation that happens in Canvas course sites suggests a perhaps

promising site for exploring the relationship between the kinds of technical writing that

instructors do in Canvas and how well students understand what they are supposed to do. Equally

important is the extent to which making use of different forms of writing (e.g., bolding, color)

affects the way that students learn and write through Canvas.

When I spoke with Paul about how he approaches Assignments in Canvas, I was not

surprised to learn that he was more interested in analog methods for assignment creation.

Instructions for assignment submission are primarily located in the syllabus, raising questions

about the relationship between instructions that are provided in-person or by analog means (e.g.,

a handout) and how students might perceive the purpose and function of assignment spaces in

online learning platforms such as Canvas—particularly if the instructor elects to put few, if any,

instructions or guiding language in those assignment spaces. Paul noted the difficulty of

providing feedback electronically, which may correlate to a preference to teach—and engage—

with print materials, including student papers. Adding another layer of complication, navigating

submissions and feedback in Assignments is not the most intuitive process; if instructors put

feedback directly into a paper on Canvas, technical difficulties may prevent students from seeing it on their. While Paul did have students submit their assignments electronically at a later date in the semester (he noted how much easier it made things), I understood his reluctance to engage with student work digitally.

Thus, much of my understanding about Paul's use (or non-use) of Assignments came from my conversations with him and his students. For example, for specific low-stakes writing assignments in the Daily Engagement section of Assignments, Paul provided a brief paragraph (sometimes with a bulleted list) and a bolded emphasis for how long the writing should be. Otherwise, Paul did provide additional context or instructions for assignments—even the summative assessments. When I asked Paul to describe the "Antigone Close Reading," a space that *did* have instructions, I learned that its instructions were pithy and get straight to the point. Paul wanted his students to identity three things in *Antigone*: the what, the how, and the why:

> So, this is a prototype of the close reading essay, actually. I mean, ideally this would be exactly what their close reading essay would ended up being, except for I made them summarize at the end What, How and Why in this bullet point fashion that they didn't have to do for the actual thing. But this is a pre close reading that they... I've found that there is no gentle entrance into close reading, it's trial by fire. I like to at least give them the chance of getting into that language and then getting some feedback from me." (Interview 2)

In speaking with Paul, I learned that this is designed to model the real close reading assignment that students would complete later on. Like Dagney, Paul also made use of formatting to emphasize the parts of writing he wanted his students to focus on. For example, in "Dorian Gray Hypothesis," Paul asked his students to trace a theme or motif in *Dorian Gray* using a what-how approach. He bolded the word length (750 words) at the end. In "Dorian Gray Hypothesis Reflection," Paul asked his students to write a 500-word reflection about a new hypothesis they have for *Dorian Gray*, and he bolded three important parts: the length of the assignment, the

phrase "new what-how hypothesis," and a request for 15 quotes from the text. Unlike Gary and

Dagney, Paul appeared to use this kind of formatting to emphasize measurable requirements (i.e.,

word count, number of sources). Perhaps for instructors like Paul, using Assignments on Canvas

is only necessary when they want to reiterate to students that they should have all the major parts

of their papers. Paul's experience also raises questions about the level of trust that instructors

have in technology to convey the writing values they speak about in class. Bolding, then, as Paul

did, might also speak to an anxiety that their emphases on particular parts of writing will not

translate as well over digital spaces as it does verbally, or in print—something that students can

touch and acknowledge in the presence of an instructor.

Modules as Extension of Accountability

While discussion boards are ubiquitous among LMSs, something that is perhaps unique

to Canvas is Modules. Many instructors use Modules, as do the participants in my study, as a

means of chronologically ordering materials or creating themes around them (or both). For

students, Modules can offer a sense of clarity and order, particularly when their instructors have

either multiple assessments, as is the case with Paul, or when they assessments that require

multiple stages of consideration and development, as is the case with Dagney and Gary. After

speaking with both writing instructors and students, it became clear that Modules was far more

important for writing instructors than for their students. For all of the writing instructors in this

study, the use of Modules similarly adheres to particular themes (in this case, unit assessments)

and dates, and I learned that they were also important for extending accountability beyond the

F2F classroom space. However, though the writing instructors of this study suggested that

Modules were useful in keeping students accountable, my sense is that it may have well been as useful for keeping *them* accountable, as well.

I would like to begin with Paul, because he not only arguably had the most robust use for Modules but also was the first instructor from whom I learned about the possibilities for accountability. Paul organized his modules by unit with assignments presented in chronological order and associated readings attached with their own sub-heading at the bottom. It is important to note that with the exception of a few items, Paul did not include instructions, links, or other materials for the tasks and assignments, citing that this information was available to students elsewhere in handouts and other print materials. Paul indicated that the idea behind this organization was to present students with all of the information about how the unit will progress up front and to be able to access the requisite (online) resources to complete the assignments and tasks for each unit. As Paul explained, "It also keeps them accountable for dates and stuff like that" (Interview 1). Each unit contained subsections of summative assessments (e.g., unit papers), formative assessments (e.g., quizzes and low stakes writing), and readings, and I observed that there was also a theme around "Other Assignments," which included two partner assignments and a list of all dates for participation. As Paul explains of his organizational approach for participation,

> I think I also did this because I wanted them to understand how much participation is worth because this is a hefty number of days. Each day is worth five points. I want to get them to see that, I tell them the first day of class that I am a difficult grader when it comes to writing. (Interview 1)

Overall, Paul said that he liked to make sure that students could see their progress in the course all the time, and I could understand how this philosophy informed his decision to display all of the participation scores at once like this. Perhaps for instructors like Paul, who value the big picture up front, the point of using Modules is to show students all the components—even the

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minutiae for which they are accountable. Perhaps the point of using Modules this way was to

extend Paul's philosophy for just how much (should) go into thinking about, developing, and

writing a major paper.

When I examined Dagney's Modules, I was surprised to observe that they possessed a

slightly different approach from the other two instructors, though she appeared similarly invested

in the idea of making student accountability visible and up front. For example, the first theme,

titled "Ongoing," housed preliminary information about the course (such as the syllabus) and

graded items that take place repeatedly over the course of the semester (such as office hours

visits or discussion responses); this module appeared to operate like a pinned thread in

Discussions, or how one can pin comments at the top in YouTube. Outside of this preliminary

module, I observed that each unit module contained the usual relevant writing prompts,

formative assessments, central readings, and grading rubrics. For example, the second module,

"Unit 1: Literacy Narrative," contained samples of graded work, an introductory survey using the

Quiz function, and the assessment for the unit. As Dagney explained of her organizational

approach in Modules,

> So under the way that I structure the Modules, the very first thing under this unit is the
> prompt so they can always go back and check the prompt. I give them a hard copy, but I
> try to make it first available on Canvas and then there's the low stakes writing assignment
> is the brainstorming. The partial draft is the partial draft. They don't really need to re-
> access those afterwards. (Dagney, Interview 3)

What makes Dagney's Modules interesting artifacts of accountability is that while she provides

everything up front like Paul, her organization was more centered on the idea of access—a

concept that she mentioned in multiple moments during our interviews. Perhaps for instructors

like Dagney, accountability was something of a journey on which she took her students; in other

words, by providing everything her students needed, the idea was not to bewilder them with

information or structure but rather to make sure they understood each component of their tasks

and assessments so that they would not, as Dagney put it, "need to re-access those [materials]

afterward." Perhaps for Dagney, using Modules in this way allowed her to have some peace of

mind that her students were at least getting exposure to these components.

Gary adopted a similar approach for his own organization in Modules. As I mentioned

previously, Gary organized his Modules page according to learning unit, with readings taking up

the top part of each module and different formative and summative assessments taking up the

bottom part. The first module, titled "Introduction: Why we write," appeared to be a sort of unit-

zero that introduced students to the course. Rather than leading up to a summative assessment or

including the most accessed items as Dagney did with her unit-zero module, this module

contained a series of quick writes which were initially facilitated by the Quizzes function. The

next three modules appeared to represent whole units, each complete with a rough draft,

reflection, and final draft components. The final module, titled "Slides," appeared to be a place in

which Gary stored slides from each class session. As with Dagney's course site, this page

represented a central hub for the course site—the idea arguably being that a student would not

have to venture anywhere else to get what they need. As Gary explains of his approach,

> Because I'm using Modules, there's never a reason for them to go to the Files folder. So I
> need a way to draw their attention to it. Being able, one of the things that I love about
> Canvas is once I've put a document in Files, there are so many different ways that I can
> tag or link to or connect to a document. (Gary, Interview 2)

What makes Gary's use of Modules interesting is that, like Paul, he wanted to show his students

the important things they were responsible for up front, but like Dagney, he wanted to make this

accountability as accessible as possible by keeping his students away from Files (and therefore

from clicking multiple things to access what they needed). Gary further notes that his guiding

philosophy for organizing things in this way via Modules involves "uploading everything,

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creating all the internal links that it's easy for students to get to the original assignment or to get

to the readings and be able to move amongst digital documents within Canvas as easily possible"

(Gary, Interview 3). Perhaps for instructors like Gary, accountability is something to be made

better—and modeled— through instructor organization. In other words, by organizing Modules

in a way that shows students what they need to read and write (as well as the order in which they

should do it), instructors can model a reasonable sense of accountability that demonstrates the

connections between smaller writing tasks, unit assignments, and, indeed, themes such as "why

we write."

Considerations for Technology and Pedagogy

In the digital age, writing instructors are often faced with the question of how best to

supplement or enhance the teaching they do in the classroom. Although writing instructors have

a choice of platforms and modalities to employ to this end (including the choice to *not* use any of

them), LMSs such as Canvas remain a booming, if perhaps not pestering, voice in this choice. In

this din, then, it is not surprising that many participants in this study view Canvas as nothing

more than a repository for texts, assignments, and resources, and further, that it has no direct

impact on writing or learning. Indeed, scholars such as Ring et al. (2012) contend that adopting

an LMS does not necessarily result in student success. Nate, a student in Dagney's class,

proclaims in all three of his interviews that he views Canvas as simply a tool for organization.

Nate's perspective is certainly not unique in this regard; the *ECAR Study of Undergraduate*

Students and Information Technology (2018) reports that "[i]t is these basic functions [of

LMSs]—such as submitting assignments—that students… were most satisfied with, rather than

more complex tasks" (Galanek et al., p. 15). Yet the instructor participants of this study tend to

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imagine and articulate much bolder purposes for their course sites in Canvas (even if they use very little), suggesting not only a potential disconnect between how instructors and students see Canvas but also that neither are aware of the extent to which Canvas may be mediating writing pedagogy and student learning.

Because Canvas plays such an influential role in pedagogy and learning, it also seems important for instructors to bring a critical lens to the tools they choose in Canvas, so that the values and behaviors they wish to extend from the physical classroom space are clear and communicate what the instructor wants—not Canvas. Although Canvas plays some interesting roles in mediating writing pedagogy and student learning, it is the users, and specifically instructors, who ultimately shape Canvas. As I argue elsewhere in this dissertation, instructors are network-makers, but LMSs such as Canvas constrain and may even muddle what instructors are trying to do. Writing scholars such as Michael R. Neal (2011) note that technological determinism creates a "technology invisibility" in which technology has agency over its users (e.g., Westrum, 1991). Rather, as Neal suggests, technology creates a tension—or, perhaps, an occasion to navigate this tension—between students and instructors: "As technological changes raise expectations, opportunities, and challenges for writers, it also creates a type of instability that students and teachers must negotiate" (p. 16). In other words, by extending their pedagogies via Canvas, writing instructors comprise one side of this negotiation, while their students comprise the other side via engagement. That is to say, when students engage with their writing instructors' designs in Canvas, they may be engaging in ways that their instructors did not anticipate, and therefore it is important to examine students' roles and perspectives in these negotiations As the next chapter suggests, these course sites may be useful topoi for understanding how students respond to their instructors' specific proclivities for navigation and

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access, as well as the template-dominated experiences and instabilities created by Canvas as a technology.

Looking Ahead

In the next chapter, I look to an equally important feature in this network of the writing classroom: the students, and, more specifically, how they engage with their writing instructors' design and organizational decisions in Canvas. I found that students engage with Canvas in reflective and critical ways. Some students use their instructors' written content to prioritize information when they read and when they use other nodes (e.g., previous assignments) to plan and build their major writing assignments. Other students resist their instructors' designs (and, perhaps, the design of Canvas itself) by limiting their participation or offering negative feedback about the function and purpose of tools their instructors chose. Ultimately, I found that while many of my student participants tended to use Canvas in the ways that their writing instructors intended, some of them had unique means of navigating, and, indeed, unique perspectives about the use of technology writ large. It is in these moments of unexpected navigation and resistance, I contend, that digital and writing scholars can learn more about the kinds of experiences they value in LMSs.

Chapter 4: Contextualizing Student Engagement in Canvas

In my conversations with student participants, I learned that designing a course site in Canvas incurs some rhetorical risk—not the risk that students may not be able to effectively navigate and use a course site (though, as a teaching consultant, I have certainly heard students voice this concern), but the risk that what a writing instructor intends to do in Canvas becomes muddled or inconsequential compared to what a student needs to do with it. As a writing instructor, I aim to design course sites in ways that leave little room for ambiguity or concern, but I also recognize that, given the competing demands that multiple courses and extracurriculars pose for students, the so-called "path of least resistance" may very be different for students than my course site design assumes. In other words, what writing instructors offer to students via Canvas in the spirit of making things easier may be different from what they need, or perhaps redundant. Another factor to consider in this rhetorical risk is how writing instructors learn to anticipate what will be useful for their students; much of this risk is arguably mitigated by teaching experience, though my student participants helpfully reminded me that every group of students is different, and, like their instructors, they bring individual experiences and expectations to using Canvas. These conversations present an opportunity to learn more about how students engage with LMSs such as Canvas, as well as how they adapt Canvas to meet their writing needs.

For a moment, let us consider Brianna, a student in Gary's writing class, who talks about how Canvas can be a site for improving writing by means of planning and organizing:

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I feel there's a lot more resources through Canvas. So that, I think, has really helped me improve my writing, so I can plan out the proper time I need because I feel if the assignments weren't on Canvas, I would literally just be shoving, looking through papers or trying to find it somewhere. If he just gave us papers of the assignment, I feel I could lose that. (Interview 2)

What Brianna's reflection shows is that Gary's design decisions may have little to nothing to do with Brianna's response to, and use of, the course site. Despite writing instructors' best intentions, and even if writing instructors keep students foremost in mind when designing their course sites, students are unlikely to be part of this design process. Scholars such as Green and Chewning (2020) similarly note the limits of LMSs in terms of student-centered teaching (p. 424), particularly when it comes to critical pedagogies. And yet, as Brianna's positive attitude to Gary's course site illustrates, students eke out their own ways of accessing resources and navigating within course sites that allow them to define their own success as writers. This is not to say that writing instructors do not have a hand in this success; rather, students appear to understand the limits of LMSs and can use what they are given in ways that make sense to them and their writing processes.

In Chapter 3, I used the term *extension* to conceptualize how writing instructors use Canvas to supplement the teaching they do in the physical classroom space. But here, I explore how students *engage* in different ways with these extensions—that is, the degree to which students make use of these extensions, ignore them, or do something unexpected altogether. Or, to return to the network, this chapter is an exploration of how information from one node (e.g., the writing instructor) travels to another node (e.g., the student) or how students respond when an aspect of the classroom network (e.g., an announcement about a conversation in class) interacts with their own networks. Beyond extension, these conversations also raise critical questions about the role of technology in student engagement (that is, how students use Canvas to plan and

put together writing assignments) and writing instructors' investments in either meeting or making lighter the expectations for student engagement through said technology. As I learned from my student participants and embedded observations, while writing instructors often front load their labor in mapping, building, and deploying their course sites, much of the labor ultimately falls to students, who must interpret their instructors' intentions via Canvas and separate out what will ultimately be useful for their writing and learning. As this chapter demonstrates, students have different strategies of engagement that help them make use of their instructors' content in Canvas or find their own way in spite of their instructors' content.

Roadmap for This Chapter

In this chapter, I explore how students respond to their writing instructors' design and organizational decisions in Canvas, but more importantly, I consider how students' decisions— such as their decisions to read and use their instructors' materials, as well as how much (or not at all)—constitute various forms of engagement. First, I outline the ways in which the students in this study used the Announcements feature as a means of skimming the classroom community; for students, Announcements exists to remind them of important conversations that take place in the F2F classroom, but as I learned, they are not as invested in this space as their instructors are. Next, I explore the extent to which students use Assignments to orient themselves to their writing and drafting processes; many students in this study expressed satisfaction with what their instructors wrote into Assignments (or with being able to understand their assignments through print handouts and classroom conversations), but many also expressed that having some content on Canvas would have been helpful. Then, I outline moments in which students resisted something their instructors did in Canvas; their criticism, I argue, serves as a form of active

engagement because it brings to light the gaps and inconsistencies that can occur when putting together a course site. Afterward, I investigate how some students responded when their writing instructors shifted tools on Canvas during the semester; while these changes did not impact these students' performance in the course, they found value in the tools their instructors were using before shifting. Finally, I reflect on some of the takeaways for student learning and engagement, namely a call to eschew notions of digital nativism and technological determinism when it comes to designing writing courses via Canvas, as well as how writing instructors and scholars might better account for the influence of Canvas and, indeed, the adaptability of students as they think about LMSs and writing pedagogy.

Engagement as Prioritizing Information

Although several themes of engagement are visible from my interviews with students, the two most salient themes are prioritizing information and resistance. Prioritizing is perhaps best defined as an engagement in which students seek out particular elements in Canvas as part of their learning and writing processes. For example, when students skim their instructors' Announcements in Canvas for specific lines of information or linked resources, they are prioritizing these aspects of information over others. As I will discuss in a moment, many of my student participants did not read the Announcements we discussed during our interviews, which led me to further observations about what, where, and how much they actually engaged with Canvas. Students also pointed out particular sections of text and Assignments that they used in the planning and writing of their major papers, and although not all of them depended on Canvas in this way, they were able to articulate their experiences of writing that showed nodes and links

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between readings, prior assignments, and even other digital spaces. In the subsections that follow, I highlight how my student participants prioritized information in different ways.

Announcements as Community Skimming

As I learned from these interviews, Announcements is a useful space for students to review important conversations that took place in class (e.g., writing concepts, schedule reminders). As I argued in the previous chapter, Announcements is a space that allows instructors to extend their classroom communities by way of assuaging students' anxieties about writing, following up on discussions about writing, and reminding students about upcoming tasks. Some students in this study were clearly aware of their instructors' efforts to keep students tethered to these conversations and resources, and they were able to articulate how Announcements *could be* useful for their writing and learning, though not emphatically so. Thus, when it comes to planning and organizing their coursework, Announcements is not the most important space to students unless instructors such as Dagney purposely use it for planning and organizing—and even then, it seems to operate as a catch-all for what students did not see in other spaces (e.g., the syllabus). At best, students are minimally invested in this space and at worst, they are completely oblivious of it, so perhaps students' engagement with Announcements is best characterized as "skimming" the community. For students, this space exists to remind them of important information should they need it, but they are also not motivated to read every word or every announcement.

During the second round of interviews, I spoke to Gary's students about two announcements: one designed to make reading easier for students and another designed to remind students to sign up for one-on-one conferences. When I spoke with Brianna, we first

talked about the announcement titled, "How to read less…'; perhaps not surprisingly, Brianna reported that she had not read it yet, and so I asked her to take a minute to look through it. When I asked about how Gary presented the information in the announcement, Brianna said that he presented things well, and she noted in particular the usefulness of leading the announcement with the hyperlinked PDF, which suggests that the words of the announcement mean less to her than the resources. Brianna also noted that this announcement would likely not have a large impact on her writing and learning but that it still may be useful. Perhaps for Brianna, learning how to read less could have been more useful for her later down the road or for other students, but because she had not read it before, it was clear that this announcement was simply not important to her at this moment. When we shifted to the announcement titled "SignUpGenius for the first conference," Brianna once again gravitated toward the hyperlinked resource first—in this case, a conference scheduling tool; Brianna reported finding this tool easy to access via Announcements but mentioned that she could also access it via email. Brianna was able to see the usefulness of what Gary presented via Announcements, but like many other students in this study, Brianna felt authorized to skim for what she needed—if and when she needed it.

Jacob's experience corroborated Brianna's in many ways, though he brought a markedly critical lens to bear on Gary's announcements. For example, when we looked at the first announcement, he also admitted that he did not read it. After looking through the announcement and its hyperlinked resource, Jacob summarized that it was offering a framework for finding important components in reading, though he also noted that his class discussed some of these components in class. Jacob suggested that if Gary meant for this to be an important resource, then it might be "getting brushed over" in Announcements; to this end, he suggested that Gary might have included more pertinent information in the title to help motivate him to read it. Like

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Brianna, Jacob suggested that these strategies might not be useful for him, but noted that they *could* be helpful. When we looked at the announcement with the SignUpGenius tool, Jacob initially steered us away from Announcements and talked about how Gary reinforced these conferences in class and over email. Like Brianna, Jacob seemed to be more interested in the resources provided with the announcement and seemed less concerned that they existed in the Announcements space. Interestingly, Jacob also noted the order in which things are presented matter to him, which further concretizes the notion that students are more likely to go directly to what they need and regard other information—in this case, text—as optional.

Andres is perhaps the exception that proves the rule. When I spoke to him about "How to read less…", he indicated that he *did* read it and even said that the title was intriguing. Like Jacob, Andres noted the order of the contents—the hyperlinked resource then the description— though he stated emphatically that he would look at the PDF no matter what. Andres took a few moments to look through the PDF and admitted that he had trouble remembering the conversation in class about this document. This was arguably a moment in which Announcements operated in a useful way as a catch-all; even just skimming through the PDF, Andres took the opportunity to remind himself of something he might have otherwise moved on from. When we talked about "SignUpGenius for the first conference," Andres stated once again that he read it, and even characterized it as "perfect" (Interview 2), though, like his peers, he seemed to prefer the email version of this announcement because he did not have to scroll through Canvas in order to find information about the conferences. For Andres, the Announcements space appeared to function as a last resort of sorts, and perhaps for students like Andres, the immediacy that email offers makes Announcements a less appealing space to skim for information.

When I spoke to Dagney's students, Sarah and Nate, we discussed two announcements pertaining to reminders for upcoming class sessions. As I discussed in Chapter 3, Dagney used the Announcements space primarily to remind students about what they need to read and complete before each class. When I spoke with Sarah about the announcement titled "Wed. 10/02," she said that she did not read it, so I gave her a moment to look through it. She noted that the announcement was very specific, and after noting the usefulness of the video link in the lower half, she gravitated toward two structural elements: the dividing line between the tasks and the bonus activity just below and the bolded verbs in the checklist. Sarah said that the announcement was more organized because of the line, noting that it indicated what was important first and what was optional later on. When we looked at the announcement titled "Wed. 10/16," Sarah similarly pointed out the structure of Dagney's information, suggesting that Dagney's approach was useful in understanding peer review because the bullets operate like a checklist, though she suggested that the number of hyperlinks was perhaps too much. Although Sarah's responses to my questions were prompted by my curiosity about Dagney's approach to Announcements, that Sarah identified technical elements such as lines, bullets, and bolding as being useful for understanding the content suggests that technical considerations make it easier for students to skim through the information they need.

When I spoke to Nate, I learned that he had similar thoughts about Dagney's approach to Announcements. When we looked at "Wed. 10/02," for example, Nate recalled that he had read it, and in assessing what Dagney had written and built into this announcement, he indicated that the bullets represent the first thing that he ought to focus on. Nate also noted the video linked in the bottom half of this announcement as something that caught his eye first, though he explained that this was a video that Dangey had already shown in class. When we looked at "Wed. 10/16,"

Nate brought an interesting insight to bear on the bulleted list; he suggested that the first bolded word of each item in the list "gets you to do something" (Interview 2) but goes on to point out that he would have been less inclined to do something if this announcement were in paragraph form. Unlike Sarah, Nate said that the repetition of resources (hyperlinked items) was not problematic for him—he noted that they were redundant but "lovely." Nate acknowledged that this announcement was not particularly helpful for him (a recurring theme in his engagement with Canvas) but that perhaps the linked items could be. Like Brianna in Gary's class, Nate did not dismiss the importance of what his instructor was trying to do, but it was clear that not all of the information, and, indeed, not all of the announcements, were vital for his success in the course.

When I spoke to Paul's students, they appeared agreeable to the idea that his announcements were helpful for their writing and learning. But in some cases, they emphasized specific words and phrases rather than the whole announcement, and they noted that Paul often spoke about the content of his announcements in class beforehand, suggesting that his information was more useful for posterity. When I spoke with Rachel about the announcement titled "Assignment Sheet + Example + Close Reading," I found it interesting how quickly her focus shifted from the content of the announcement to how it was presented. She said that she read it, and she indicated that it was important in her understanding the genre conventions of close reading; she noted that Paul included good notes for reference. However, after noting how centralized and "concise" everything was, she still said that it was a lot of words and that she would prefer a bulleted list. When we looked at the announcement titled "Sample Essay," she noted that she and the class had already discussed its contents in class and that this conversation also pertained to the kinds of things Paul uploaded on Canvas. Even though Rachel said that she

found this announcement helpful because it gave context to what she and her classmates were reading, I wondered how she would have read this announcement (or not) had they not discussed it in class beforehand. It is possible that Rachel may not have been reading such announcements closely and instead using it to fill in details from the classroom conversation—arguably a productive use of the Announcements space.

Surprisingly, when I spoke with Peter about the first announcement, he outrightly admitted that he only skimmed it; in his words, "[it was] a lot" (Interview 2). Like Rachel, he also noted that Paul had already touched upon some of this material during class, which suggests that perhaps some of the information in this announcement was either redundant or unnecessary for him. Peter did agree that this announcement was useful for his learning because it helped him understand what to do for his upcoming assignment, though he also noted that it was a massive block of text, which may have discouraged him from reading the whole thing. To this end, Peter suggests that putting everything on one screen is detrimental. Unlike his peers, he noted that bolded phrases, such as "never throw away work" helped to ingrain important writing concepts in his mind—but perhaps also made it easier to focus on specific items rather than the whole announcement. When we looked at "Sample Essay," Peter indicated that he had read it, but more importantly, he noted how Paul had added examples to the Files to help him and his classmates know how to approach an analytic essay. While Peter affirmed that this announcement fulfilled his expectations for helping him to think about the upcoming paper, I found it interesting that, like the students in Gary's class, the introduction of resources seemed to make the reading experience better for him.

Iris reported similar experiences when we looked at these announcements. For example, when we talked about "Assignment Sheet + Example + Close Reading," Iris indicated that she

read it and that it was also helpful in understanding the close reading essay. What was interesting, however, is that Iris noted that she only reads instructions once, and so this announcement functioned to help her *refocus* on what she needed to do for the assignment. Like her peers, she noted that this announcement was quite wordy, but she indicated that the title was what helped her to read through the rest of it, and, indeed, Paul's announcement titles tended to signpost his information precisely. Like Peter, Iris also reported that more technical elements, such as bolding and italicizing, were helpful for keeping her focused. When we looked at "Sample Essay," Iris unsurprisingly explained that this announcement attuned her to the examples Paul posted in Files; she noted that the sample essays (which were not linked here) were helpful, though she admitted that the second essay sample was a little intimidating for her. Like other students in this study, Iris tended to skim for information, and while Paul's students agreed that his announcements tended to be lengthy, it is perhaps not the content of the announcement, but rather the signals (e.g., descriptive titles, bolding, italicizing) that help students get the most out of these spaces.

These students' engagement with Announcements in Canvas suggests that *how* students read information in these spaces is far more significant than *how much* they read—or if they really read them at all. While writing instructors may envision a host of uses for this space—even as an extension of the classroom community—it is clear that students are more likely to engage in information seeking than read their instructors' words religiously. It is also clear that students do not read everything, despite their instructors' best intentions. For the students who had read these announcements before our interviews, I wonder if they would have given much thought to them had I not brought them up in the first place. As I argued previously, students tend to take the path of least resistance, which is not a surprising behavior in online spaces (the

idea, after all, is to find the information that they need quickly). So when instructors include

resources in their announcements, it makes sense that some students will look at the resources

first or instead of the written content. And when students do read through announcements, it is

the structures by which writing instructors present content that helps students identify what the

most important sections or concepts are. Clearly, for students, announcements operate best when

they are concise and can immediately identify the takeaway or deliverable (e.g., a linked PDF);

otherwise, they will feel compelled to do more work (i.e., reading) or skim for they find most

useful.

Assignments as Touch Points in the Writing Process

Like Announcements, Assignments appears to operate as a space for students to find

information about their upcoming assignments; however, unlike Announcements, the stakes for

this space feel higher because they are associated with grades. In other words, it behooves

students to pay more attention to the information contained within Assignments so that they do

not make mistakes about assignment criteria or other required elements. Even if the writing

instructors did not include the assignment guidelines in an assignment portal on Canvas, it is

clear from the interviews that the students generally understood what they needed to do for these

assignments and were able to articulate the role that this information played in their writing

process, along with other materials contained within Canvas in other spaces online. In most

cases, the students in this study did not report anything surprising about using Assignments on

Canvas and engaged with their writing instructors' content in arguably predictable ways in these

spaces. However, as I learned in these interviews, the students oriented themselves to these

writing assignments in different ways, and they relied on different content in Canvas and in other

digital spaces to help them plan and complete their assignments. I was also struck by the varying degrees to which Assignments played a role in their writing process—for some students, Assignments played a primary role in orienting them, and for other students, it played a more passive role compared to other tools they used.

When I spoke to Gary's students in the second round of interviews, we spoke about two assessments related to a rhetorical analysis: the first and final drafts. As with Announcements, I asked questions about how Gary presented the information and resources contained within. Of the assessment draft information, Andres characterized what he saw as useful:

> I think it's good. I like how it summarized what the focus of the writing assignment is, and what the main thing he'll be grading on is, like the usage of ethos, logos, and pathos. And how he wanted to know maybe the format of publication or see how the audience is targeted. (Interview 2)

Here, Andres explained the specific criteria and writing moves that Gary was expecting from him and his peers, and he made clear how this information was focused and up front. He also liked the inclusion of the PDF with the fuller assignment requirements and grading rubric. Andres did note however, that some of the information from the PDF Gary included could be surfaced a bit more in the description and suggested that another sentence about the reflection requirement could be useful. Andres explained that he also used the pre-writing assignments that came before to help him write his draft, and that he typically had two windows open during his writing process—one with a blank document and one that displays these pre-writing assignments. For Andres, the pre-writing assignments (presumably work that he had completed in anticipation of this draft) were clearly more important for his writing process that the first draft description, though his desire for more a couple more details up front suggests that students might benefit a checklist approach to assignment descriptions as they are getting ready to submit their work.

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When we talked about the final draft assessment in Assignments, Andres said that Gary's expectations came across clearly in this space. At this point in the interview, Andres had not yet thought about how he would approach his final draft for the rhetorical analysis, but interestingly, he noted that the assignment overview here was helpful in case he made mistakes or did not read the prompt clearly. In terms of the writing process, Andres explained that he used the draft that he submitted earlier on and opened up a new writing space to essentially rewrite this paper. Andres also suggested that it would be difficult to include all the assignment details here, and that students would need the PDF that Gary included to fully understand what to do. For students like Andres, it appears that having two kinds of assignment content in Assignments is useful in ensuring that they fulfill their writing instructors' requirements: a general overview that delineates the major components of the assignment (and therefore serves as a final checklist), and access to a fuller description and specific assignment instructions as a PDF so as not to making the reading experience overwhelming. Perhaps for students like Andres, having choice in how to access assignment instructions makes managing the writing process easier.

When I spoke with Brianna, she seemed to confirm the usefulness of a brief overview and the choice to access a longer version of content in Assignments. When we talked about the first draft for the rhetorical analysis, Brianna explained that Gary provided a brief, though useful overview, but she also liked having access to the PDF of the assignment to help her see what she was missing when she was writing. As Brianna explained,

> I think [the instructions are] really helpful because it's just a brief overview of what we're supposed to do. And he also includes the PDF, which is the full instructions, which also, I really think is helpful because sometimes if I'm going through and trying to edit and I see that I'm missing something, he'll have all of it right there. But yeah, I like how he just includes a brief overview and not a lengthy thing because it'd be harder to focus on if it was really lengthy and that kind of stuff. (Interview 2)

Brianna further explained that as she was writing for the first draft, she also used some of the smaller-stakes pre-writing assignments (e.g., Pre-Writing #1) and put them into her paper. I learned that Pre-Writing #1 was designed to explore relationships to audience and the use of close reading for quotes, which helped me better understand how Gary scaffolded various writing skills in anticipation of his summative assessments via Canvas. Brianna said that it was easy to know what to do for the rhetorical analysis based on Gary's instructions in Assignments, but she also thought that an example might have been helpful. Perhaps Brianna was searching for specific kinds of language and writing moves to make in her own rhetorical analysis, which may account for why the pre-writing assignments were more useful for her process than the assignment description itself—and why she thought an example would be useful for her.

When we spoke about the final draft for this assignment, we agreed that the description had more or less the same approach as the first draft. Interestingly, Brianna noted that in order to complete the assignment, she needed access to the PDF assignment sheet. Brianna explained that she used a significant portion of her first draft and ended up writing a few more paragraphs beyond that; she also indicated that office hours, which are not part of Gary's Canvas course site except through a sign-up portal in Announcements, was particularly helpful as she was putting together the final draft. Perhaps counter to the engagement with Canvas she had demonstrated to me earlier on, Brianna explained that she was not entirely dependent on Canvas to complete the final version of this assignment. For students like Brianna, perhaps it is helpful to have access to different kinds of assignment information on Canvas, but it appears that Gary (the instructor) can carry more authority about a student's writing process (i.e., what to write, how to write it), which may explain why Brianna got more out of office hours conversations with Gary than she did from simply following the assignment instructions on Canvas. After all, Canvas does not have

the ability to affirm students' writing ideas, nor does it have the ability to communicate to students that their writing is effective. In this case, only Gary could do that.

My conversations with Jacob confirmed the ways in which certain materials convey more pedagogical ethos over others, but what was interesting about Jacob's experience is what *stood out* to him when we accessed the Assignments space. When we spoke about the rough draft of the rhetorical analysis, he noted that he did not mind the way Gary set up the overview information for the assignment but that he tended to go straight to the PDF because it stood out to him more (in other words, as a hyperlink, it appeared in a different color). As such, Jacob explained, he tended to miss important details from the overview:

> I don't mind this. It's just so, actually sometimes the other day for an assignment, for one of our pre-writings, I didn't even read this, I just went right to the PDF assuming all of the information would be there and I completely missed an important direction. And I ended up only including a single piece of evidence when I was supposed to have three. And instead I just wrote the entire assignment on a single piece of evidence that was in the directions of the header and so I missed an important key. (Interview 2)

As Jacob explained about his writing process for the draft, he indicated that he had written a few paragraphs previously and used what he had submitted for the pre-writing assignments to plan and put together his paper, and he said that he read the PDF a couple of times before writing. For students like Jacob, perhaps having access to the fuller PDF carries more authority about assignment instructions than a simple overview in Canvas because it is like receiving a paper copy of the assignment in the F2F classroom space. But as Jacob's experience shows, hyperlinked materials can also distract from the importance of other text, such as Gary's overview for the assignment.

When we talked about the final draft, like Brianna, Jacob pointed out that the format was fairly similar. Unlike his peers, however, Jacob pointed to a notable difference between the two spaces: that the draft space contained the word count for the assignment. In terms of his writing

process, he indicated that he changed a lot of his writing and ended up cutting out a lot of things, though he did not share specifically what spaces he had open for this part of his writing process. However, Jacob noted that Gary made things easier by providing the pre-writing assignments, drafting, and office hours (I assumed that for the first two items, he was referring to the assignment spaces in Canvas). He also noted that the assignment sheet was useful, pointing to the rubric portion as being the most helpful as he was writing. I was particularly struck by how Jacob described the ways in which Gary "made things easier" in this case; as I learned from Gary in the previous chapter, scaffolding is an important part of his teaching, and it appeared that conversations with students was part of that process. For students such as Jacob, having different touch points—pre-writing assignments and office hours—are ways in which they can make the most of this scaffolding, even if everything is posted on Canvas.

When I spoke with Dagney's students during the second round of interviews, we looked at two assignments: peer review feedback letters for the literacy narrative, and a partial draft for the rhetorical analysis. When I spoke with Sarah about the feedback letters, we discussed some of the technical approaches that Dagney took in designing her assignments, including colors and bullet points to help guide students to what they needed to do. Sarah explained that the interface was quite organized and easy to understand:

> Because she doesn't have just everything like in one ... Let's say like a big paragraph. Instead she has spaces between ... For example, here it said on the hard copy of the draft, and then space and then with the bullet points instead of just clumping it in like a big paragraph. And then she also said, "highlight your favorite part screen," and she herself highlighted the word. And then she bolds words, too. (Interview 2)

When Sarah talked about having "spaces between," she was speaking about the readability of the assignment, which although was present in my conversations with students from other sections, was not quite as impactful as it was here. Sarah also noted other technical features of Dagney's

writing, such as bolding, which she said caught her attention. Sarah said that she read the sample

peer review letters and the instructions to compose this assignment for herself. Interestingly,

Sarah paid particular attention to the technical language of the instructions (e.g., page length

requirements) and she cited the "In Your Letter" section of the assignment as an example of how

she could look at everything she needed to maximize the points she could receive. As I suggest

in Chapter 3, perhaps the formatting of an assignment in Canvas is just as important in helping

students to be successful—or, at the very least, helping them to orient themselves outside of the

classroom.

When we discussed the partial draft of the rhetorical analysis, Sarah noted that, compared

to the first assignment we looked at, this one had fewer specific details; to this end, she pointed

out a hyperlink to the full prompt for the assignment. This was not surprising considering that

Dagney had explained to me her intention to not post quite as much material up front as the

semester progressed. When I asked her about the highlighted portion of the text, Sarah explained

that she tended to read through these highlighted portions first. When we talked about the peer

review group listing in the bottom part of the assignment, she said that she found this helpful but

that Dagney had already shown this part in class, which allowed Sarah to see this information in

another context. Sarah also explained that she used the assignment sheet itself as a way to see

what she was missing, as well as a text from the course pack in order to draft this assignment.

Sarah's experience suggests that instructors can adopt different strategies in formatting in order

to guide students, but it also suggests that instructors can guide students in digital assignment

spaces by relying more on formatting than lengthy descriptions.

When I spoke with Nate about the peer review letter assignment, he articulated his

experience a bit differently, but I was able to learn more about how Dagney was able to model

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writing strategies in Assignments by listening to him. Nate explained that this particular

assignment was a repeated activity that set up the structure of the subsequent assignment. Nate

noted that the coloring and underlining that Dagney used were effective in the introduction to the

assignment; the colors, Nate confirmed, were related to the highlighters that Dagney wanted him

and his peers to use:

> The underlining, I think, is also helpful, but I will say it is a lot. I look at this and I would probably get, I would say, through here, somewhere around here, I would start to phase off once the pretty colors and special formatting goes away, but, at the same token, if you use that too much, then it also loses meaning. So maybe if there's more things that want to be highlighted, maybe spread out a selected amount of highlighting/underlining or formatting change. (Interview 2).

Nate explained that the underlining was "a lot," but that it starts to taper off eventually, and he

said that bullet points were much easier to interpret. For his part, Nate said that he used a black

pen, a green pen, and a red pen for each of his reading passes and that he looked at his peers'

questions first, noting that it was difficult otherwise because peer reviewers have different

thoughts. Nate was more critical of Dagney's approach to this assignment, wanting things to be

more "spread out," but like his peer Sarah, he noted that the formatting was helpful in guiding

how he did peer review. For lower stakes assignments such as this one, writing instructors can

use the Assignments space to *show* students how to be successful in a step-by-step approach.

When Nate and I talked about the partial draft assignment, he noted that the highlighted

portion grabbed his attention first. He also indicated that the assignment prompt did not feel like

a chore to read for him and that, ordinarily, he would have probably read through the entire

thing. Nate also thought that Dagney's use of a separating line was a "nice touch" and suggested

that the hyperlinks throughout the assignment prompt were necessary. What Nate and Sarah's

experiences with reading through Assignments suggests is that even if writing instructors review

every detail of an assignment prompt in the F2F classroom space, they have access to a wider

range of multimodal choices in Canvas in order to draw students' attention to particular words and phrases. What is not as clear is where writing instructors should strike a balance between brevity (which is ideal for digital reading) and formatting (which can aid in digital reading). As Dagney explained in Chapter 3, her purpose in formatting her text in this way was to create moments and points of accessibility, and so I wondered what would have happened had there been little or no text in these Assignment spaces, which I learned about from Paul's students.

When I spoke with Paul's students about two assignments—a close reading text for *Antigone* and a final draft for the first close reading assignment—it became clear that Paul's use of Assignments on Canvas was vestigial; in order to understand the assignments, I would have had to read his syllabus or be part of the classroom discussions around assignment prompts. When I talked with Rachel about the *Antigone* close reading task, she explained that the instructions provide the technical content for the assignment (such as the word count), which she reported being helpful:

> Well, I mean for particularly for this one is, our whole focus right now is close reading, so we talk about it a lot in class. So really this is just primarily the technical stuff, the word count. And this is just something that he wanted us to focus on. We didn't really need... This description is fine for what we needed only because we talk about it so much in class. (Interview 2)

Rachel noted that "this is just something that [Paul] he wanted [them] to focus on," which revealed another facet for why (and when) Paul chose to populate an Assignments portal with text: to reiterate specific requirements of an assignment, such as word count. As Rachel explained, she also had access to the syllabus, which contained all of the assignment information, which also suggests that most if not all discussions of assignments took place in the F2F classroom. Rachel explained that the *Antigone* close reading task was designed to practice the larger close reading assignment coming up. Because Rachel and her peers "talk about it [the

assignment] so much in class," it seemed that she did not require the assignment prompt at all in order to complete the assignment.

When we talked about the final draft for the close reading assignment, which contained no text at all, we paused for a moment to consider the implications. Before accessing the assignment, Rachel noted that her experience might have been different because she had already received feedback from Paul earlier on, and she affirmed that it might have been helpful to have a little more description for the assignment, but because the assignment material existed in the syllabus and in class discussions, it was clear that the lack of text had no effect on Rachel's ability to do the assignment. In terms of Rachel's writing process, she explained that she had the assignment sheet (I assume from the syllabus) and that she depended on the classroom discussions to help her draft her work. Based on Paul's feedback, Rachel said that she essentially "rewrote the entire essay," citing that it was initially not as coherent. As I learned in my observations of Paul's course site, students rarely ever submitted work through Canvas, and so Assignments did not serve a purpose outside of setting reminders about specific items Paul wanted his students to include. Yet, the fact that Rachel acknowledged that more text could have been helpful suggests a benefit in using Canvas to facilitate multiple points of access for assignment materials. This is not to say that Paul would have needed to copy and paste his assignments directly into this space; rather, given the questions of balance that Gary and Dagney's students raise, *some* text (even just an overview) can be helpful in (re)orienting students to their writing for summative assessments such as this one.

When I spoke to Peter about the *Antigone* close reading task, he confirmed that Paul had already gone over the instructions in class, so he suggested that what Paul had typed in this space was designed to serve as a reminder or a preview. Paul also told me that some of the things

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brought up in class did not necessarily align with what he read on Canvas, which raised

questions about the kinds of context that could be helpful in the Assignments space. As Peter

explained,

> The *Antigone* close reading is not, but there are a few... Like I mentioned, there are some
> assignments that were taking out, for example, that don't match what he wants from us
> no, or he maybe changed the due date but didn't change it on Canvas, or maybe the
> assignment is slightly different or has a different wording that might confuse students, so
> he needs to clarify that in class. (Interview 2)

Peter went on to explain that he started this assignment by practicing close reading; he began by

attempting to close read the way he did in high school—that is, looking for evidence and then

finding the thematic element—which he indicated did not work well for him. Peter explained

that he put a lot of energy into this assignment because he was keen to know how his writing was

progressing. Ultimately, Peter indicated that the assignment prompt on Canvas was sufficient,

but he looked more at the paper assignment more than this space, saying that he thought the

assignment here was asking for something different. As with Jacob in Gary's class, Peter's

experience confirms that alignment of content between spaces—even the classroom space and

Canvas—should be clear as students will likely not recall everything that took place in class or

what they read on a physical assignment sheet.

When Peter and I discussed the final draft of the close reading assignment, Peter

indicated that it would have been nice to have more description here as this was a rather large

assignment. He suggested that having something similar to the assignment sheet in this space

would have been helpful, though he also suggested that having the whole rubric here would have

been too excessive. Peter said that it was a lot easier to know what to do for this assignment

because Paul walked through the entire handout in class. Peter seemed to have been able to

complete this assignment without a prompt in Canvas because he was able to get what he needed

from the paper version. But curiously, Peter also suggested that perhaps it would have been an easier experience if it were available through Canvas. Peter's experience shows that even when writing instructors do a good job of explaining their expectations and requirements for an assignment in class, Canvas can help to concretize expectations (and, to be sure, Paul did occasionally use Assignments for this purpose), or it can inadvertently create a gap in students' understanding of an assignment when the information made available in class is not similarly available in Assignments. It would appear that even if students do not require assignment information in Canvas, having it available there can help facilitate consistency from the time the writing instructor crafts the assignment sheet to the moment the students submit the assignment.

When I spoke with Iris about the *Antigone* close reading assignment, she shared a slightly different engagement experience, and I was struck by her articulation of the assignment's purpose. Iris explained that this assignment was "really specific," noting that it gets into the what, how, and why for approaching the writing. Iris went on to explain that Paul's purpose was to remind her and her peers of what they went over in class:

> It's really specific and the chart with the what, how, why. Everything helped to identify how we should approach the assignment. And most of what's written on here is also what he goes over in class before. So it helps, as a reminder of what he said and even if some parts aren't too detailed, since he already went over it in class, it just helps give an overview of what we're striving for. (Interview 2)

In terms of process, Iris explained that she went in the order of Paul's instructions; she looked for interesting lines in *Antigone* and followed the prescribed structure. Iris confirmed that this prompt was meant to set a reminder for what Paul was looking for in the assignment but did not cover the same things that were discussed in class. I found it interesting that Iris picked up on the specificity of this prompt in ways that her peers did not, though it was not clear whether she extrapolated this specificity from the prompt on Canvas or from a combination of the print

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assignment sheet and class discussions. Perhaps for students like Iris, an overview is all that is needed to catch the details that students might write off as minor or tend to forget.

When we talked about the final draft for the close reading assignment, Iris unsurprisingly noted that the lack of instructions in Canvas was not a concern for her. Like her peers, Iris tended to rely more on the paper version of the assignment instructions rather than on Canvas for her writing process. As Iris explained, she used the rough draft that she produced earlier, the assignment sheet, and conversations she had with peers in class to develop her paper. Iris credited the syllabus and the assignment sheet for making it easy to know what to do. Although Iris's experience differed from those of her peers, it is clear that students benefit from having multiple touch points for their writing process, and I argue that for many students, LMSs such as Canvas are one of these touch points. It is clear from speaking with students like Iris that Paul has scaffolded and facilitated multiple touch points for this assignment in sharing print resources and having conversations in class. It is also clear that some students, like Iris, may not need to have additional touch points in Canvas. But perhaps writing instructors might consider the benefit of having multiple pathways for students to read and plan for their writing assignments through Canvas. If Paul's intention was to use Assignments to remind students of last-minute minutiae, then it might have been useful to have an overview similar to that of the close reading task.

As with Announcements, students get different kinds of reading experiences from Assignments, and they possess different reading needs in order to help orient themselves to assignment requirements and to map out their writing processes. Gary's approach to Assignments shows that students require different kinds of instructions and descriptions at different times—and that they need to have control over that information for themselves.

However, as Jacob's experience demonstrates, writing instructors should ensure that whatever information they highlight or preview from a longer body of text (e.g., a PDF) is aligned so that the same general requirements appear in both formats. Dagney's approach to Assignments was very similar to her approach with Announcements—using formatting to guide students' reading experiences. Even if Nate and Sarah did not find any of their instructor's text useful as they were putting together their assignments, it is clear that other students would have multiple means of orienting themselves to the material. Paul's approach to using Assignments was minimal and, seemingly, on an as-needed basis, and while his students seemed to be comfortable with accessing assignment information outside of Canvas, it was clear, particularly in Rachel and Peter's cases, that some context would have been better than none. As assignments represent some of the most high-stakes work that students will do in a writing class, these students' experiences suggest that some alignment between the classroom (including print documents) and Canvas benefits a wide range of students.

Engagement as Resistance

Resistance is another theme that shows student thinking about Canvas and their interactions in its network. Some scholars might argue that resistance is more synonymous with *dis*engagement, which is true in many ways, but I argue for its place in the realm of engagement because of its ability to critically show where tension might exist between students and their instructors or students and Canvas. And, as I argue later on in this section, resistance creates opportunities to examine where gaps might exist in design or where alternative pathways might be possible. One form of critical resistance that occurred in this study is when students expressed concerns about participation or limited their participation altogether. Another kind of resistance

occurred when instructors changed from one tool to another (as Gary did when he switched from

Quizzes to Collaboration) or stopped using a particular tool altogether (as Paul did with

Discussions at the beginning of the semester). In the subsections that follow, I unpack a few

moments of resistance in which students demonstrated insightful and reflective criticalities about

Canvas.

Resistance as Critical Engagement

As I argued in Chapter 1, students have little control over Canvas and must contend with

the constraints of the platform's designs and the ways in which their instructors leverage these

designs. It is perhaps not surprising, then, that most of the students in this study engaged in ways

that align with their writing instructors' expectations and with the templates of their Canvas

course sites. At the beginning of this chapter, I also argued that students tend to be more

motivated by seeing the fruits of their labor and progress—grades likely being the most

significant catalyst—and are therefore likely to engage just as their instructors and their course

sites intend them to. So when students navigate learning spaces on their own terms, in spite of a

course site's design, their actions suggest (perhaps even unwittingly) that there are gaps and

unused spaces in the architecture of Canvas that are either easier to use or simply exploitable.

And even when students simply disagree with what their instructors have done in Canvas, their

disagreement lays bare the moments when Canvas ceases to function as a pedagogical tool and

becomes an obstacle. To these ends, three students—Andres, Nate, and Peter—show how

resistance to Canvas can be a form of active engagement.

Many scholars would rightly argue that active engagement must be visible and

measurable, and, to be fair, the writing instructors in this study are limited in their perceptions of

how their students engage with their course sites short of looking to analytics or personally asking students about their experiences. However, I maintain that resistance is an active form of engagement because of the work it does in revealing (and *critiquing*) the gaps and obstacles that emerge in a writing instructor's design—work that most other students in this study were not keen to do. As I learned, Andres, the student a Gary's class, resisted Canvas through alternative orientation, or by using different spaces or seeking different materials from what his instructor intended to figure out what he needed to do. Nate, the student in Dagney's class, resisted Canvas through his refusal to participate, in which he abstained or delayed his participation in the discussion board space. Peter, the student in Paul's class, resisted Canvas through his objection to the alignment between what his instructor and Canvas communicated; in other words, he expressed frustration that what his instructor said in class was not reflected in Canvas.

Andres represents the first experience of critical resistance because of his counterintuitive method of orienting himself to Canvas. When we first looked together at Gary's course site to talk about what Andres thought about the structure and organization, I learned that Andres navigated the course site differently than how I imagined he would. Instead of going to the Home page, which contained the entire navigation of the course site, he went to Files to figure out what he needed to do. When I asked him about this choice, Andres explained that he tended to go to Files first because he liked the organization and hierarchy in this space; interestingly, he also said that dates seemed more visible to him there and that he could access things in this space that he could not from the Home page. Instructors who make use of Modules (the default tool of the Home page) might find Andres' choice counterintuitive because Modules offers various means of centralizing course content—including chronological order. Of course, it is possible to upload content via Modules without indicating dates, whereas Files shows the exact dates and times in

which instructors upload materials, so perhaps the latter functionality might have appealed more immediately to Andres' need for visible dates.

However, as we approached the middle of the semester, Andres changed how he oriented himself to Canvas. In the second interview, I learned that Andres began to use Modules more because Gary's lecture slides became available in this space, whereas previously, they were only available in Files. As Andres explained,

> But sometimes now if I'm automatically redirected to Home, since slides are at the bottom and I don't have to like parse through a lot of information, and the most recent slide is at the bottom, I'll just immediately scroll to the bottom and then just click on it. And it's kind of nice. (Interview 2)

At the beginning of the semester, I assumed that Andres' navigational choice was motivated by a specific need for hierarchy and visibility of dates, and so I was surprised to learn that all it took for him to use the Home page was for Gary to include his lecture slides. Equally interesting was Andres' concern for "[parsing] through a lot of information," which makes his earlier choice for using Files appear more reasonable. Even though Modules is arguably designed to circumvent some of the challenges of finding materials, it is possible that until Gary uploaded his lecture slides into Modules, Andres felt that parsing through information was a much easier experience in Files. I recall observing when Gary began to include his lecture slides in Modules, but I cannot say what specifically prompted this shift, nor can I say if students such as Andres were part of Gary's decision. What I can say is that Andres' initial resistance to using the Home page suggests that instructors who use Modules to clarify tasks and readings may be inadvertently complicating orientation for some students. I can also say that Andres' experience shows that some students require different signals and representations of time and hierarchy. For students like Andres, lecture slides may be how they figure out what they need to do. For other students, it might be assignments or readings. While Andres' resistance did not necessarily effect change,

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it is interesting that his resistance was quelled with a simple relocation of lecture slides. Indeed, his active engagement against the grain demonstrates how subtly an instructor's design in Canvas can accommodate or marginalize different navigation styles.

Nate represents the second experience of critical resistance. Throughout the semester, Nate stood firmly on his position that Canvas is nothing more than a repository, and I sensed that he was generally resistant to the idea that Canvas could be useful for his learning and writing. But in fact, it is precisely what Nate did *not* deem useful for his learning and writing that helped me understand how students can leverage their agency in online learning spaces; by refusing to participate in certain tasks, Nate actively engages in a critique of the usefulness of socializing idea generation in Canvas. When he and I spoke about the final unit of Dagney's course, a multimodal assignment, we looked together at a discussion board assignment in which Dagney asked students to post plans for their final projects. As I learned from Dagney, this assignment was set up so that students could read each other's posts as they were coming up with their own ideas; the purpose behind this approach was for students to learn from others' models while producing their own. Nate seemed to indicate that his peers' ideas—and, indeed, the social design of the assignment itself—was not essential for his own plans for the multimodal assignment. As Nate remarked,

> This is cool to see other people's ideas, but I know that I'm not interested in talking about the idea that's on my screen… So seeing other people's ideas is… I don't want to be discrediting to their ideas and say it's less important, but it doesn't factor in as very much into how I'm going to complete the assignment. (Interview 3)

Although Nate indicated that he did not find the assignment setup lacking or thought that other students would not benefit from Dagney's approach, I found it interesting that it simply did not factor into his own idea generation. Nate went on to explain that he did not want other students to see his idea, and so he waited until the end to make his post; he also noted that he felt

supported by the student models that Dagney shared in class, so he did not bother looking at the ones in the discussion board post.

What makes Nate's experience interesting is that it is difficult to discern whether he did not want others to see his work out of a concern for how they might respond to it or if he was simply being modest about the quality of his idea. It is also possible that the social design of the assignment might have unintentionally created anxiety about being seen by others for some students. Even Sarah, Nate's classmate, noted that it felt strange to share her work with others in the discussion board space, and so it is perhaps not surprising that Nate might have had similar feelings. Perhaps both he and Sarah had concerns about their ideas being taken up by their peers as models. Regardless of his reasons for resistance, however, Nate's refusal to share his work until the very end enters into a larger discussion about how making discussion board posts social and visible to the degree Dagney did might also create discomfort or redundancy for some students. It seems likely that Nate was able to produce his own idea from the models that were shared in the classroom space—an already uncomfortable experience for some students—and so it was not necessary to experience the extension of this modeling in Canvas. And so, as writing instructors and digital scholars continue to think about what enhances engagement in online learning spaces, we might also consider the anxieties and fatigue that students might experience in participating with one another, as well as when idea generation might be more productive in isolated spaces.

Peter represents the third experience of resistance, not because he prefered alternative orientation or sought to opt out of participation, but because he felt his work was unfairly marked late due to misaligned dates in Canvas and was, understandably, aggrieved. During the second interview, Peter shared that he was struggling with the rigor of his writing assignments; however,

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during the third interview, I sensed that he had become frustrated with Paul, and when we walked through the assignments on Canvas, he brought up a reflection letter assignment as an example of his vexation. According to Peter, the reflection letter was due on November 11, but after Paul adjusted the date, the change was not reflected on Canvas. Peter explained,

> Like he's not updating them [the assignment dates] even though our schedule is changing. So what happened was I still got the points so it wasn't a huge deal, but I actually missed a due date because the assignment date here was before. Like we ended up turning it later, so it marks you as late when you turn it in, but like I just missed the day completely. (Interview 3)

In hearing Peter speak, I sensed that his frustration was more likely tethered to the difficulty of the course, yet I noted his continued focus on being marked late; his frustration also suggested that this was a recurring pattern. Although he was still awarded the points for the assignment, being marked late by Canvas was clearly discouraging for Peter and something he felt Paul should have addressed more consistently.

What Peter's experience demonstrates is that even if writing instructors make their adjustments to dates and assignment details clear in the F2F classroom, Canvas still plays a role in keeping students organized, and when such changes are not reflected in the course site, what the instructor says in the classroom can become mistranslated. On the surface, Peter did not object to Canvas itself but rather to how his instructor Paul used it. Nevertheless, Peter's desire to see dates reflected accurately in Canvas suggests that he depends on Canvas just as much, if not more, than his instructor for accountability. On more than one occasion, Peter said that he "uses Canvas a lot," and so he may also have been objecting to how Canvas had failed as a tool of personal accountability. Peter's experience suggests that Canvas can serve as a tool of personal accountability for instructors, as well—a point that Peter makes clear in his frustration toward Paul. Ultimately, Peter's resistance to Canvas in this manner raises questions about the

potential consequences of inconsistencies between classroom and digital material(s). Nowadays, students such as Peter are likely to be socialized into using LMSs such as Canvas at some point during their K-12 years, and so it should not be altogether surprising that Canvas can serve as a pedagogical authority, if not the final word, for some students.

Had the experiences of Andres, Nate, and Peter played a more active role in their instructors' design and organization on Canvas, perhaps their instructors might have made different decisions to help accommodate their specific needs. But these students' resistance to Canvas suggests that while most students will conform to what their instructors intend (and, to a large extent, the design of Canvas itself), their instructors cannot anticipate every contingency. Andres, at least initially, seemed to be seeking more control than what Modules offered; that he conformed to using the Home page only when Gary put his lecture slides there implies that students might benefit from having multiple paths for orienting themselves or having everything—literally everything—in one place instead. Nate, on the other hand, seemed to purposely disengage by limiting or planning his moments of engagement in the discussion board space. With some exceptions, discussion boards like the one in Canvas tend to have an all-or-nothing design; that is, instructors can choose to make their students' posts visible to all, visible to none, or visible upon posting—but not a combination thereof. Nate's resistance to Dagney's visible discussion board undergirds the importance of writing instructors discussing with their students norms for sharing writing in spaces on Canvas and the implications of socializing the writing process in this way.

On that note, it is also important to consider the role that digital templates play in mediating and complicating these students' experiences. As I argued in Chapter 1, the primary purpose of templates is to make using digital spaces easier, and, indeed, for writing classrooms,

templates are presumably intended to make the teaching and learning experiences easier, as well. But even if writing instructors had fuller control over their course sites (e.g., the back-end, including the algorithms), their designs would still play a significant role in mediating their content and intentions. This insight is particularly true for Peter, who despite feeling reasonably frustrated by his instructor Paul, was deeply affected by how Canvas marked his work as late even though Paul did not lower his grade. And so, these accounts of resistance can help writing instructors and digital scholars understand not only the complications of the end-learner experience but also the limitations (and dangers) of using such templates as an extension of instructor presence—or a replacement for it. While templates do make things easier, these experiences show that they can make things worse for some students, as well.

Confronting Shifts in Tools

As I explained in Chapter 3, two instructors, Paul and Gary, made shifts in the tools they were using at the beginning of the semester. For example, Paul used Discussions at the beginning of the semester to pair students together for a class discussion and to practice close reading, but he did not use this space for anything after that. Gary, on the other hand, used the Quizzes tool at the beginning of the semester for his students' free-writing exercises in class but then shifted to Collaborations (Google Docs). As I learned from students, such shifts made writing and learning a little easier for them, though in a couple of cases, it created some unexpected complications. In the case of Paul's class, I learned that there was relatively little engagement in Discussions when it came to pairing up because it was framed as an optional space; after all, if students are not obliged to use this space, it is likely that they will not. In the case of Gary's class, I learned that

the shift to Google Docs was likely a good move, though a couple of students had expressed some unique insights about its role in their free-writing.

When I asked Paul's students about his brief use of Discussions on Canvas, I learned that in the close reading practice thread that they could see one another's posts in the same way that Dagney's students could in their threads. When I spoke with Peter, he explained that he posted a close reading, after which he was instructed to ask a question or comment on another student's post. When I asked him about this experience, Peter said that it was a little "nerve-wracking" being in such a visible space, but he also suggested that "the discussion was useful so maybe if you [the instructor] did more discussions that you would get more feedback, and you're right, my writing would develop a little more" (Interview 1). Iris confirmed that she and her peers were using this thread for practicing close reading, and that it also made her nervous because others could view her work. Interestingly, Iris frames this kind of visibility as "something we'll have to get used to at times" (Interview 1), which suggests that making this activity visible presents an opportunity to also begin confronting the "publicness" of writing in digital spaces. That Paul discontinued using Discussions may not have impacted his students' writing and learning in the long view, but it does raise questions about how modeling and practicing writing in a such visible way might helpful for students such as Peter, who later expressed difficulties with the course and found this exercise useful—and especially given the rigor with which Paul teaches about close reading.

When I spoke with Gary's students about his shift from Quizzes to Collaborations, they did not disagree with his choice, though they offered slightly different responses to it. As I explained in Chapter 3, Gary used Quizzes to post a writing prompt to which students would have a few moments to respond. Gary explained that he shifted from Quizzes to Collaborations

because he was concerned about the implications and constraints of using a quizzing tool for a non-quiz activity. When I spoke with Andres about this shift, he indicated that he had been using Google Docs outside of Canvas anyway, so the shift did not present much challenge for him. To this end, Andres delineates the affordances of completing quick-writes in Google Docs:

> I don't think on the quiz I'm able to italicize or bold. Or even if I am, it's not as easy as it is in Google Docs. Also in Google Docs, if there was something that I wanted to reference in like a previous quick write, then I can control F, and then just find the previous quick write in my collection of quick writes. (Interview 2)

For Andres, the highlights of using Google Docs for quick-writes pertained to customization and findability. Andres liked being able to customize his writing by changing the appearance of the text (e.g., bolding and italicizing) and being able to find his previous quick-writes by using *ctrl+f*. The one disadvantage to using Google Docs for quick-writes, Andres argued, was that there was no timer in the way there was in Quizzes. When I spoke with Jacob and Brianna, I was surprised to learn that they preferred the Quizzes tool over Google Docs. As Jacob explained,

> I actually prefer to use the quizzes on Canvas, because now when we have to write on the Google Docs, he posts the question on the board. And then, I have to log into my […] email and or not my […] account to get to my Google Docs and then I have to sign in and then I have to go to my Google Docs, scroll all the way to the bottom. (Interview 2).

Jacob's concern about the degree of separation between Canvas and Google Docs—particularly in the frustration of logging into a separate space and finding the appropriate document—is a valid one. Even Brianna explained that the experience of using Google Docs for quick-writes was a bit cluttered; she noted that she did not like seeing everything (I assume the quick-writes) in one space because it caused her to be off task. Both Jacob and Brianna seemed to suggest that Quizzes kept quick-writes *usefully* constrained; as I have argued elsewhere, Canvas often competes with instructors for pedagogical ethos, and so it is not altogether surprising that some students might feel that things are easier to complete if they are consolidated into their LMS.

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On that note, I would like to pause on Collaborations for a moment because in speaking to Gary and his students about this shift, I learned that he and they have markedly different impressions about where Collaborations is *located* in relation to Canvas. As I explained in Chapter 3, Collaborations is essentially a simplified version of Google Drive that is integrated into the Canvas LMS. Gary confirmed that he was using Google Docs via Collaborations, but Andres, Brianna, and Jacob perceived that they were simply using Google Docs *outside* of Canvas. And this perception is not incorrect as there is no real difference between using a Google Doc via Canvas and using it on its own. Perhaps for Brianna and Jacob, shifting from Quizzes to Collaborations meant adding an external tool and therefore another layer of engagement on top of what they were already doing in Canvas. Although I agree with Gary's assessment that Quizzes may carry a problematic ethos, I also see the value of repurposing tools in creative ways—such as repurposing Quizzes for quick-writes—and apparently, students can see this value, too.

Considerations for Student Engagement

Ultimately, regardless of the technologies and modes that writing instructors choose to deploy their pedagogies, it is the students—perhaps unfairly framed as the passive recipients in this relationship—who must navigate and familiarize themselves with their instructors' course sites. Students have little choice in their instructors' organizational decisions in LMSs, and worse still, they have virtually no options for customization in Canvas. In looking at the perspectives of students, then, it is important to eschew notions of digital nativism, as it does not account for the ways that students adapt to new technologies or their possible organizational combinations. When it comes to Canvas and other LMSs, to be added to a course site, even when one has used

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the same kinds of course sites, is to potentially learn an entirely new way of navigating and accessing tools and resources. In other words, just because a student has been exposed to various course sites in Canvas (and therefore different organizational combinations), instructors should not assume that students will know how to use every course site. Digital nativism also elides the socioeconomic realities that give some students greater access to, and skill with, technologies than other students. Although I did not ask about my student participants' socioeconomic status or access to technology, some student participants did indicate a larger range of experiences with technology than others, as evidenced by their confidence and articulation of those experiences.

In order to better understand the student perspective of using Canvas, scholars and instructors must keep notions of technological determinism and digital nativism in check. Yet, as technology use continues to find footholds in education, it is becoming arguably easier to take the role of technology for granted in our teaching and learning; even as participants tout Canvas's usefulness as a tool, to suggest that the LMS has no role in shaping writing pedagogy or students' learning is not quite correct, either. As I have learned in this study, instructors and students have different standpoints, motivations, and expectations when it comes to using technology such as Canvas in the classroom. As the stakes are different between instructors and their students, it should not be surprising that disconnects and other unexpected phenomena can occur from the moment instructors deploy their pedagogical content via Canvas to the moment that students take it up for their learning.

As I mentioned before, students are likely to take the easier path when it comes to reading materials, so I wonder about the ratio of instructors' written components versus students' thresholds for screen fatigue (or their willingness to stay on a page reading things for a certain number of minutes). Also important to consider here is that students might "read around" for

things—that is, read one item and not others or skip items altogether (e.g., when students in Gary's class mention going directly to the PDF linked at the bottom of an assignment before looking at the assignment text itself). I also wonder about the role of structure in instructors' writing on Canvas: how likely are students to skip things if the instructor has written paragraphs of information? What about if the instructor puts things together in chunked or bulleted portions? My sense is that it was probably more difficult for Paul's students to read his announcements, for example, because they were rather long; on the other hand, students in Dagney's class were able to identify the important parts of her assignments (which contained a lot of information and links) based on their structures.

At a macro level, it is also important to consider, given Canvas's potential influence over instructor's designs and therefore students' user interactions, how differently students might be using the course site versus how instructors have set things up. For example, Andres initially ventured to Files in order to orient himself before Gary moved his lecture slides to Modules. This discussion might have more relevance here because it shows a potential disconnection between instructor design and student use. We might also consider the role of disruption when it comes to design and use. By using Discussions as a means to brainstorm and open up ideas to other students, some might argue that Dagney is disrupting the intended use (this phrase, I realize, is loaded with ideological and technological assumptions) of Discussions. At the same time, Nate, who does not find value in this tool for himself, is disrupting Dagney's use of Discussions by posting last and not looking at his peers' work. Also important here is how instructors and their students negotiate misalignments in Canvas. When Paul changes the dates for certain assignments later in the semester (from what I understand in the interviews, he did so in class but not on Canvas), this created some confusion for his students; while Paul's communication

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appears to occur more frequently in verbal form, the fact that his students were looking for alignment in Canvas (i.e., changes made in class being reflected in Canvas as well) shows that Canvas plays an important mediating role even when it is not being used as much.

Looking Ahead

In the final chapter of this dissertation, I distill the pedagogical and rhetorical implications from the findings I shared in Chapters 3 and 4, as well as future questions and directions for research that writing and digital scholars might pursue from this work. I also delineate the stakes of this research for writing program administrators, writing instructors, and students who use LMSs such as Canvas, and I also acknowledge the ways in which instructional and IT support units can play a role in facilitating extension and engagement in the network. I acknowledge the ways that this dissertation has transformed my own teaching—including the way I design and deploy Canvas course sites for my students—and so I also offer introspective lessons that I have taken away from this experience. What the COVID-19 pandemic and other national and international challenges make clear is that, even in times of relative peace and mundanity, the digital—or, at the very least, the partially hybrid—will continue to have a presence in writing pedagogy, and so it is worth looking to the technologies we use, including LMSs, as part of our writing classroom networks.

Chapter 5: Toward a Network-Centered Approach to Canvas

When I began this dissertation, I wanted to learn more about the difference between what writing instructors build into Canvas and what their students actually do with what their instructors build. I knew that, as a writing instructor, my own students were not as invested in the tools and structure I provided in the LMSs I used, and so I expected the students in this study to be similarly uninvested—and, indeed, some of them were—but this dissertation shows that, regardless of their investments, they engaged with Canvas in a variety of ways such as and when they used bits and pieces of the course sites (e.g., Assignments, Announcements) when building their major papers or found alternative means of navigation (e.g., using Files over Modules). Students also engaged with Canvas when they commented on how their instructors built their course sites—what they found useful, what they found not as useful or redundant, or what they resisted altogether. While some writing and digital scholars might identify this kind of feedback as passive engagement, I argue that it can be active in the sense that it brings to light what students actually use (or *want* to use), what they do not use, and what they take control of for themselves. Canvas can be a useful extension of classroom community and structure, but more importantly, students can and should be part of how writing instructors build their course sites to these ends.

As I bring this dissertation to a close, new and even more pressing questions emerge for writing and digital scholars, and for writing instructors looking to improve their use of Canvas. If Canvas can serve as an extension of the writing classroom, then should instructors and their students change their views about it? In other words, if we built more consciousness about

extension into a Canvas course site, could there be a paradigm shift such that users might go from seeing their course sites as repositories (indeed, the purpose of a *course management system*, or CMS) to something more dynamic and integrated into their learning (which is the point of an LMS)? And given the fact that Canvas is essentially a template that allows or always muddles (or least constrains) innovation or organization in some way, how can we, as writing instructors and scholars, make the connection between our classroom pedagogies and our course sites more visible and immediately useful for our students' learning and writing? The point of extension, at least from what I learned in talking to instructor participants, is not to make sure that students respond to or take up everything instructors put out there (Dagney, in particular, acknowledges this), but rather to make sure that students have every available means to learn and review material from class. Perhaps extension works best as an invitation rather than a requirement. In other words, giving students a few different paths (or, in this case of this dissertation, nodes and links) by which to complete assignments and enhance their learning may not only make their more unusual uses of Canvas normal but also provide a means of helping students learn how to use LMSs, too.

Roadmap of This Chapter

The purpose of this chapter is to surface the lessons and takeaways from my interviews and observations and how they pertain to the wider network of writing instructors (and instructors writ large), students, and instructional and technology support units. In the first part of this chapter, I offer some key implications from Chapters 3 and 4. First, I explore some of the major lessons learned by thinking about the themes of extension and engagement, as well as what these themes bring to bear on agency in Canvas. Second, I explore the major lessons for the

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network framework I employed for this study—particularly in terms of how other scholars might use this framework for thinking about learning and writing in LMSs. Third, I share some of the limitations of this study, including some of the questions that I invite digital and writing scholars to explore from this point forward.

In the second part of this chapter, I offer reflections for various stakeholders who find may value in this work, and I also reflect on how my own stakeholdership has been transformed by this experience. First, I think through considerations for writing instructors and writing pedagogy in which I address how Canvas can support the work that students are already doing in class; here, I call upon scholars to attend to the relationship between writing classroom spaces and Canvas course sites. Second, I consider how instructional consultants, who often take on the work training for technology, can help instructors extend support for learning and writing through Canvas, suggesting that consultants can help instructors conceptualize course sites as integral to their F2F teaching. Third, I address the student side of this discussion, arguing ultimately that students must be centered in any online learning platform and that their responses and resistance to them can help shape scholars' understanding of how students best learn and write with these technologies. Finally, I return to my positionality as a writing instructor and digital researcher in terms of what I have learned to do with Canvas as a result of my interactions with students and instructors, as well as where instructors and scholars can go next with this research.

Lessons for Extension, Engagement, and Agency

This dissertation has presented narratives and experiences of how writing instructors create extensions for their classrooms and pedagogies, as well as how their students engage with

the tools and constraints presented to them through (or in spite of) these extensions. This dissertation is also a story about agency: the agency that writing instructors enact through their choice of tools and designs in their course sites; the agency that students enact by adhering to their instructors choices as well as by resisting and seeking out alternative means of navigation and orientation; and, indeed, the agency that Canvas—as a template—brings to bear on the learning and writing experience. Doubtless several more stories about agency exist within the network(s) of Canvas and writing pedagogies. From the information technology (IT) units that support and maintain the back end of Canvas to the various other stakeholders who use Canvas for administrative and professional development purposes, this dissertation provides a foundation for exploring further the implications of user agency—such as what happens when users' agencies (such as teachers and students) come into contact with one another in online learning spaces. While I was not able to explore agency further in this study, the results of Chapters 3 and 4 highlight some important themes that writing and digital scholars might take up in future research.

First, as Chapter 3 suggests, the theme of extension helps us to understand how writing instructors can use Canvas as a space to build upon and reinforcethe values of writing, learning, and community that they deem important in their pedagogies. As I learned from Dagney, using the Discussions tool can help to socialize learning by allowing students to not only see what their peers have written before they post their own work but also to create models that other students can see. While Nate and Sarah expressed some resistance to this idea, I imagine that other students in Dagney's classroom doubtless found this approach useful. While some students might balk at the idea of posting in Discussions, I argue that Dagney's use of Discussions in this way was motivated by supporting students and making their learning more accessible. In this

spirit, writing scholars might look to more innovative ways of using such features and how doing so might disrupt the stagnation of "make a post and respond to two other students' posts" or might show a way for instructors to resist the template of Canvas, as well. In a similar vein, as I learned from all three instructors in this study, Announcements is a critical node for instructors and students in the network because it allows instructors to build aspects of community—from creating structures that make the writing experience easier (e.g., hyperlinks and bullet points) to offering suggestions or encouragement for particularly challenging writing, as Paul did. Writing scholars might consider Announcements as a critical touchstone for how instructors follow up with their students; to this end, scholars might also investigate further how this space sets a tone for the classroom community: what do instructors' announcements suggest about their personalities and expectations?

Extension also allows us to consider how some of the more explicit aspects of the writing classroom, such as accountability and writing guidelines, map onto Canvas. As I learned from Paul, for example, Modules can serve as a useful space for showing a fuller picture of the tasks students face in a writing course, if not a replication or deeper dive of the assignments and course schedule. As I learned from Gary and Dagney, however, this accountability can also emphasize larger themes for which students might be accountable (e.g., students understanding the difference between what they are writing and for whom they are writing—themes around which Gary designed his Modules). One item I did not look at as closely in this study is the syllabus, a document that often structures accountability for students in similar ways; scholars might look to the similarities and tensions between how accountability functions between analog and digital presentations of assignments and due dates in the writing classroom. I suspect that a similar tension would be at work in Assignments, where writing instructors often extend their

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expectations for writing. Each instructor in this study took such a different approach to posting assignments (or not) in Canvas, but as I learned from students, having some sort of text (even short) in an assignment on Canvas seems useful. Scholars, then, might consider how to use Assignments as part of a system of touchpoints for students. In other words, if students have access to assignment information in their syllabus (or assignment sheet), on Canvas, and through their writing instructors, to what degree is their understanding of what they need to do enhanced or muddled?

Next, as Chapter 4 suggests, the theme of engagement helps us to understand how and why (or why not) students use and navigate Canvas according to or in spite of their instructors' designs. As I learned from Nate, not all students are interested in socialized learning experiences online; while Nate and Sarah recognize the usefulness of Dagney's choice to use Discussions to socialize idea generation for writing, they also show how some decisions can create constraints for student learning or create gaps that students can usefully exploit in pursuit of their own engagement. The story of students not using tools in the ways their instructors expect is not a new one, but it does bear repeating here because it suggests that, even with the best intentions, repurposing a tool to improve student learning may not be one that resonates with all students. As I learned from students, instructors' intentions may also not guarantee that their students will read everything they put into Canvas, and while it seems that students can complete assignments without reading Announcements, having some kind of information for them to skim is nevertheless helpful. Again, writing scholars might look to the tensions between analog and digital materials; as some students in this study indicated, they were able to understand what they needed to do just from reading handouts and talking with their instructors, but some students also indicated that having *some* instructor-written guidance would be useful. Perhaps the lesson here

is that building multiple touchpoints for accessing information—through handouts and instructor speech, but also through Assignments and Modules—can ensure that students will be able to engage in *some* way.

Engagement also allows us to see what is perhaps not working as well, or what is working *differently*, in the network for students. As I learned from Andres, who initially oriented himself to Gary's course site by using Files, different approaches to navigation within Canvas should not alarm writing instructors about the usefulness (or stability) of the networks they create in their course sites. Rather, it should suggest to writing and digital scholars that networks should have multiple points of access and navigation. One way that instructors such as Gary and Dagney already facilitate this function is through providing hyperlinked materials or creating technical structures by which students can orient themselves (if they want to). It is also worth noting that if some course sites inadvertently create different navigation experiences for students, it does not indicate a failed design on the part of instructors or their support units but rather shows the "leakiness" of the network that Chun presented in her research. In this case, I do not simply argue that the unattended nodes and links within a course site point to places that need to be strengthened or eliminated; that students such as Andres can leverage different ways of finding information and materials in Canvas—without being prompted by their instructors—suggests that no network is as singular and static as some instructors (and, indeed, as the template of Canvas itself) might assume or intend. Such experiences may reveal, in fact, how much bigger or differently connected the network actually is.

And so, with these lessons in mind, I would like to briefly return to the notion of agency. Looking to the framework of network, as well as to the themes of extension and engagement, allows us to understand how writing instructors and their students approach writing and learning

from multiple perspectives and motivations, but more importantly, it allows see just how each agentive force—instructors, students, and Canvas itself—act upon the network. One powerful insight this dissertation yields, for example, is that the agency of students is taken for granted. I have come to respect the agency of students in this study, some of whom opened themselves up and spoke honestly about what they did not like. Peter, who expressed frustration at the alignments between what his instructor said about due dates and what appeared in Canvas, is a prime example of why writing and digital scholars should research the tensions between analog and digital materials, as well as potential consequences when these materials are not linked. Another insight pertains to the agency of writing instructors (and, indeed, instructors writ large), who, as I argued elsewhere, are network-makers when they use Canvas. It is without question that instructors communicate a particular ethos (authority, content knowledge, and support), and so *how* they construct their networks in Canvas may well indicate how *well* they can extend this ethos beyond the classroom space.

And, of course, in discussing agency, I must also address the questions of power in the network—in other words, who or what gets to control how users interact with Canvas, what gets built, and how things look. As Peter's experience in Chapter 4 shows, Canvas has power in the way it can mistranslate or muddle an instructor's intentions (e.g., communicating due dates differently than what the instructor said)—which shows how technology can be at odds with the instructor. Writing and digital scholars might also consider, then, how the ethos of Canvas and the instructors who use it might be in tension; or, to put it in Chun's terms, how the networks of LMSs might be leaking into those of instructors and vice versa. What is clear, however, is that Canvas, as an agent, is seeking to dictate and constrain learning into an experience visible in how instructors design their course sites and how Canvas , while instructors and students are seeking

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to untether some of this determinism to create a more dynamic experience. Perhaps, as writing and other departments use LMSs more to students' learning experiences, scholars will need to address the challenges that arise when students and instructors find themselves at odds with LMS templates.

In reflecting on these instances of agency, I find it troubling how unclear it is to what extent K-12 schools and universities should be held accountable for making their LMSs accessible and navigable for students. And from this problem arises an important, if not critical question: Are LMSs considered websites or classrooms? Some would argue that they are both, which also calls into question the level of responsibility that institutions and instructors have for making their pedagogical content navigable in Canvas, which is really a broader question of accessibility. If physical university classrooms must be compliant or accommodate for disabled students, for example, should online learning platforms meet the same kinds of standards? One complication here, as Crow (2008) notes, is that "[p]ostsecondary educational institutions are not expressly mandated by any single piece of legislation to provide or maintain accessible Web sites" (p. 169). Furthermore, as Johnson et al. (2003) indicate, it is unclear whether postsecondary institutions are required to provide technologies to assist disabled learners (as cited in Crow, p. 172). If LMSs are considered classrooms in this context, then perhaps they need only accommodate on an as-needed basis or retrofit when mandated to do so—neither of which is a forward way of thinking for *any* student. Scholars attending to web accessibility might consider how designing and organizing a course site in LMSs such as Canvas might inform a larger discussion about what it means to "create" accessibility.

Lessons for Networks and LMSs

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Canvas also offers two important lessons about navigating LMSs. The first lesson is that how nodes and links are positioned within the network of an LMS determines how it is meant to be navigated. Because of how instructors might shape the navigation experience, however, it is important to note as well that nodes and links can offer multiple pathways along which students can navigate (even ones not intended by developers or instructors)—and on this front, scholars should take Canvas's agency and influence on the writing classroom network seriously. This lesson may not hit home as much if they are navigating something like a simple website that only contains a few hyperlinks, but when they are faced with a space that spans pages and links, they will better understand where their movement is more expected, where they are slowed or stopped, and where they might be excluded altogether. Along a similar vein, the second lesson pertains to how students take stock of what works well and what does not in an LMS such as Canvas. In other words, considering navigation from a critical perspective means that students can evaluate what kinds of information and nodes should be prioritized, as well as how they use clues from the organization to determine how to move through such spaces efficiently. Every LMS and website will be different, but Canvas can provide a useful starting point for students to consider their stakes as navigators.

The framework of network arguably allows scholars and instructors to see how agents and their influences are situated in Canvas. But in looking back to my own instructor experiences, two critical implications occur to me. First, as I suggested earlier, Canvas possesses agency because it controls how students and instructors interact with the template of a course site, that instructors have agency in that they modify Canvas, and that students have agency insofar as what they are allowed to access or navigate in Canvas. However, as I reflect on my instructor agency in organizing my course sites, I am also struck by the agency of Canvas

itself—not as a suite of developers and other stakeholders, but as an algorithm. Chun contends that one of the most popular algorithms pertains to academic metrics (p. 54). And while algorithms are too complex to fully unpack in this dissertation (e.g., Eyman, p. 42), it is clear that we should be mindful of their influence upon the network. What strikes me here is not that Instructure has an ideological agenda for education behind their algorithm (they clearly do); rather, I see an opportunity for digital scholars and instructors to think about how algorithms act against students and shape their experiences in the network, as well. As an instructor, I am just as bound to the agentive powers of the algorithm as my students are. Even the developers, who create the algorithm, are bound to its effects and capacities because they cannot truly predict how it will behave once they unleash it. If digital scholars wish to make teaching and learning more critical and responsive in LMSs, they must attend to the power that algorithms have on the experiences for all stakeholders, instructors included.

And while I recognize that many postsecondary instructors have good reasons for not using LMSs, developing a useable taxonomy from Eyman and Chun's work has been important for two reasons. First, as Sandberg (2013) contends, and as I explain in Chapter 1, a problematic assumption prevails that because incoming students are viewed as technologically-savvy that they will automatically know how to access things digitally. Both Sandberg and my personal experience argue that this is not the case, and it is important to think about how we might support and empower students' learning experiences through the tools and platforms we commonly use in the present age—LMSs included. Second, as online learning platforms such as Canvas are gaining ground in postsecondary learning—and especially in FYC--it is worth thinking about how we might harness this movement to create more useful online pedagogies. I do not argue that all FYC instructors should use LMSs, nor do I believe that LMSs are the *only* interfaces

through which to facilitate writing pedagogy (sites such as WordPress can serve as similarly useful models).

As I suggested elsewhere, the proprietary influence of Canvas and instructor-sponsored organization largely determines how students could potentially navigate Canvas. Indeed, the network and its nodes and links provide indications for how students are able to move through Canvas, and they underpin the extent to which students have agency as users. Although students may click on whatever menu items are available and access the content within, their access is contingent upon whether the instructor has activated and/or populated these nodes within their course site. Thus, in addition to being a network-maker, the instructor becomes gatekeeper and shepherd in a student's navigation. Instructors may have good reason for keeping students out of some areas of Canvas (e.g., to prevent them from seeing an assignment too early), which raises questions, though, about how navigation can become a frustrated or obfuscated experience for students. One positive effect that instructors' gatekeeping may have on navigation, however, is that it prevents students from "messing up" parts of the digital space; in other words, while a student may navigate to various parts of Canvas, they cannot disrupt or destabilize any part of the digital space as it is controlled by the instructor.

Limitations and Future Questions

The results that I present in this dissertation represent only a fraction of the possibilities that remain in the data. Methodologically speaking, if I had more time and resources, I would like to have delved more deeply into the screencast interviews to account for other orientation and navigation movements made by students in the study. Similarly, I would also have liked to engage with students and instructors using a usability study (UX) method to track more

accurately what they were clicking and how they were narrating their experiences. In looking back at the interview questions (see Appendix A), I can see how some lines of questioning were designed to produce specific answers—which indeed yielded understanding about what students found useful—but I wonder how differently these interviews would have proceeded had I designed more task-based questions to see students' navigation in question. A UX approach would have also been useful for instructors in the study. For example, by asking writing instructors to demonstrate how they design a Module or how they put together an assignment would show the kinds of navigation and orientation practices that instructors engage in as network-makers. As such, I invite writing and digital scholars (particularly those with a background in UX) to plumb the depths further and investigate the specific moves and rationales that users narrate as they come to terms with a course site in Canvas or another LMS. Perhaps a UX study that follows this one would reveal more about the ways in which learning and teaching are connected via networks, as well as how to strengthen them.

Another area that I would have liked to explore more deeply is analytics. As an Observer in Canvas, I did not have access to student analytics or other resources to tell the quantitative side of this story. It would be fascinating to see how the rhetorical and qualitative work I have done in this dissertation aligns with or diverges from the analytics that instructors, IT specialists, and even students (to some degree) have access to. One concern that I have as a digital scholar is how analytics can be used to make decisions about student learning; I have always argued that analytics comprise one side of the story (and an incomplete one at that), and so I invite other scholars to compare the numbers and experiences of student engagement—to what degree, for example, do page views and participation scores in Canvas align with the experiences that students in this study have shown and narrated? Related to analytics, and an ever-growing

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concern in the digital age, is surveillance. This dissertation does not delve into issues of surveillance, per se, but it does raise questions about how instructors' design and organization decisions in Canvas can create architectures of surveillance. For example, what might scholars who study data mining and algorithms want to know about how instructor designs in LMSs can facilitate surveillance? What might they make of Paul's use of Modules in keeping students accountable for every task and assignment? Surveillance shares a troubling relationship with analytics, which provides yet another insight into how Canvas can be a deterministic agent for student learning: to what extent does designing a course in an LMS create opportunities for surveillance and control, and how might we steer instructors toward a more dynamic, network-centered approach?

Finally, I have written at length about networks and the ways in which Canvas itself is a network and also part of a larger network of teaching and learning, but I have not written about how it compares to other networks, or, indeed, how it features in the broader discussion about rhetorical ecologies. At the time of writing these words, Madison Jones (2022), via the *Rhetoric Society of America*, released a graphic on Facebook showing a timeline of scholarly contributions for rhetorical ecologies (see Figure 5.1); even digital rhetoric scholars such as Doug Eyman (2015) and Angela Haas (2015) have contributed to this body of work, showing the importance of the network—and of the relationships of its constituencies. As Jones' graphic demonstrates, discussions around rhetorical ecologies have been part of our scholarly consciousness since at least 1975, and so I invite future scholars to think about how the network framework I proposed for this study might map onto other iterations of network and ecology, as well as the broader rhetorical implications for agency and movements within these paradigms.

A Timeline of Rhetoric's Ecological Turn(s)

Dan Ehrenfeld
"'Sharing a World with Others'" (2020)

Louis M. Maraj
Black or Right (2020)

Dustin Edwards
"'Critical Infrastructure Literacies…'" (2021)

Madison Jones
"A Counterhistory of Rhetorical Ecologies" (2021)

Bridie McGreavy, & al.
Tracing Rhetoric and Material Life (2017)

Hannah J. Rule
Situating Writing Processes (2019)

Caroline Gottschalk Druschke
"A Trophic Future for Rhetorical Ecologies" (2019)

Gabriela Raquel Ríos
"Cultivating land-based literacies and rhetorics" (2015)

Asao B. Inoue
Antiracist Writing Assessment Ecologies (2015)

Chris Mays
"Writing Complexity, One Stability at a Time" (2018)

Nathan Stormer & B. McGreavy
"Thinking Ecologically About Rhetoric's Ontology" (2017)

Douglas Eyman
Digital Rhetoric (2015)

Robin E. Jensen
"An Ecological Turn in Rhetoric of Health Scholarship" (2015)

Angela Haas
Femrhet Keynote (2015)

Noah Roderick
"Analogize This!" (2012)

Paul Lynch
"Composition's New Thing" (2012)

Collin Gifford Brooke
Lingua Fracta (2009)

David Grant
"Toward Sustainable Literacies" (2009)

Sidney I. Dobrin & Sean Morey
Ecosee (2009)

Nathaniel A. Rivers & Ryan P. Weber
Ecological, Pedagogical, Public Rhetoric (2011)

Jenny Edbauer
"Unframing Models of Public Distribution" (2005)

Byron Hawk
A Counter-History of Composition (2007)

Kristie Fleckenstein, & al.
"The Importance of Harmony" (2008)

Stuart Blythe
"Agencies, Ecologies, and the Mundane Artifacts in Our Midst" (2007)

Clay Spinuzzi
Tracing Genres through Organizations (2003)

Nedra Reynolds
Geographies of Writing (2004)

Marika Segal
"One Little Fellow Named Ecology" (2005)

S. Dobrin
ASLE Plenary Address (2001)

Randall Roorda
Dramas of Solitude (1998)

S. Dobrin & Christian R. Weisser
Ecocomposition (2001)

R. Roorda
Formation of the ASLE-CCCC SIG (1996)

Margaret Syverson
The Wealth of Reality (1999)

M. Jimmie Killingsworth & Jacqueline S. Palmer
Ecospeak (1991)

George A. Kennedy
"A Hoot in the Dark" (1992)

Louise Wetherbee Phelps
Composition as a Human Science (1988)

Karen Burke LeFevre
Invention as a Social Act (1987)

Marilyn Cooper
"The Ecology of Writing" (1986)

R. Coe
"Rhetoric 2001" (1974)

R. Coe
"Closed System Composition" (1975)

Richard Coe
"Eco-Logic for the Composition Classroom" (1975)

Timeline markers: 2020, 2015, 2005, 2000, 1990, 1975

Figure 5.3: A graphic, created by Madison Jones (2022) that shows a timeline of ecological turns in rhetoric.

Reflections for Stakeholders

As I argued in Chapter 1, writing instructors, students, and Canvas have agentic power within the network. And while I written about the kinds of agency that instructors and students bring to bear (and have suggested that Canvas brings its own kind of agency to bear) on the teaching and learning experiences, I would like to address the kinds of agency that they, and other stakeholders, can enact on Canvas moving forward. Depending on the class and context,

instructors likely have the most to gain from this discussion because they are the primary

creators of course content in Canvas. Put differently, they materialize the pace and tone for the

course that their students ostensibly follow. Students also gain from this discussion by knowing

that their alternative navigations and resistance are all valuable forms of engagement that

illustrate to instructors and scholars the inner workings of Canvas—some of which are not

immediately visible and therefore worthy of further investigation. Instructional support units, and

even information technology (IT) units, also play an important role in maintaining and improving

upon this network; although I do not write about IT's role in the network(s) of Canvas, their

presence in the background nevertheless must be acknowledged in mobilizing this research into

practice.

For Writing Instructors and Writing Pedagogy

Writing instructors use Canvas to extend their pedagogies, their desires for what they

want students to get out of their courses, and, in some ways, the kinds of study, reading, writing,

and organizational habits they want their students to adopt (even if only to a small degree). This

matters because it suggests that technologies such as Canvas can amplify these learning and

value-laden idiosyncrasies. It also appears that *graduate* writing instructors adopt particular

features of Canvas in response to how they were trained to use Canvas by professors, mentors

and other people around them in similar fields and disciplines. This matters because if we want

to make Canvas a more accessible space for teaching, it might behoove English departments to

think more about how they train their new instructors to use LMSs, as well as how they are

crowdsourcing tips and tricks. There does not appear to be an agreed-upon path for learning how

to build a course site in Canvas, but as we continue to navigate the challenges of the COVID-19

pandemic and beyond, it is vital that we avail ourselves of all available resources—including Canvas—so that we can not only support our students' writing and learning but also come to terms with the methods of navigation and orientation that work best for them.

As a writing instructor, I have always marveled at the ways in which my fellow instructors are able to eke out their own resources and training when faced with new technologies such as Canvas, and I marvel in particular at the ways in which graduate instructors find unique and creative ways of adopting and adapting methods from others, whether they access mentors and colleagues to help them set up their course sites or use their professors' methods as models for building course sites. Graduate instructors are in a unique position for this kind of study because, as I learned from Dagney, Gary, and Paul, they are able to leverage what they learn in their capacities as graduate *students* to build course sites in Canvas. In other words, graduate instructors occupy a space that allows them to learn about writing and pedagogical strategies that they can then use for their own writing classrooms, so it seems reasonable that they can do the same with technology. While I argue in a moment that English departments should at least offer some basic training in Canvas, I want to acknowledge that Dagney, Gary, and Paul made good use of their positions as graduate students to seek out what they needed to build their course sites—a practice that should be given more attention as other scholars investigate ways of improving LMSs in writing pedagogy.

At the same time, we should not simply assume that, just because writing instructors learn to set things up in Canvas consistently or even accessibly for their students, students will use or respond to Canvas in the same way. Some students will use Canvas in ways that are unpredictable (or at least, that make the most sense to them), and their writing and learning may happen in spite of Canvas—not necessarily because of it. My student participants reported

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having a lot of experience using LMSs, but there is nothing in particular that points to how they learn to use them. In many cases, it is easy to imagine that some instructors simply say, "This is what we're going to use" and the students just do it. That some students have different ways of using Canvas shows that neither writing instructors nor the Canvas template can anticipate entirely what students will need. Most students will use LMSs such as Canvas only because they are told to, and while a couple of my student participants (e.g., Andres and Nate) are able to wrest away some control of their engagement with Canvas because of their backgrounds with and interests in technology, most students in this study demonstrated a very basic engagement with Canvas, and it seems they would prefer it that way. Writing instructors and scholars, then, might consider how facilitate different options for engagement that allow students to decide how much or how little they should interact with their course sites and still be successful.

It is also important to note that content knowledge and previous pedagogical experience does appear to inform, to a degree, how writing instructors choose to use Canvas. For instructors who hail from more composition and rhetoric backgrounds, themes that coalesce around specific writing skills (e.g., Gary's "what we write for" or Dagney's color coding for peer review) might be reflected in the use of Modules and in the language and formatting of instructions in Assignments. For instructors who hail from literature backgrounds, themes that suggest specific genres and ideologies of writing (e.g., Paul's preference for close reading and analysis) might be reflected similarly. In addition, analog approaches to teaching writing, such as disseminating print handouts for assignments, might indicate a more traditional approach for teaching writing genres in literature, which could explain why Paul preferred to talk about assignments in class and provide paper materials for his students. It might also explain why he preferred to build out the nodes of his course site with little information. I do not argue that there is a right or wrong

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way for writing instructors to use Canvas, but I do feel that the relationship between an instructor's background and how an instructor designs Canvas is one that writing scholars should attend to in future research.

As I suggested in Chapter 3, structure and community appear to be the most salient motivations for how content appears in Canvas; in other words, as this study shows, the kinds of writing and engagement that instructors impart to their students in class often appear in the form of extensions via various tools in Canvas. Thus, writing and digital scholars might think more about the relationships and tensions between digital content in LMSs and analog and social content in the physical classroom space. Scholars concerned with multimodality might also consider how formatting and structure in Canvas can support students' ability to plan and develop their writing over time; as I learned from the students in this study, building assignments into Canvas—particularly *with* text—creates a record, or audit trail, that they can access in planning and building their papers, and so writing instructors should at least feel encouraged to build content in Canvas in concert with their analog and in-person materials. Further, scholars might also look into how the community that instructors build in the classroom are represented in the language and designs that they employ in LMSs. This is particularly important as instructors and students alike navigate the ever-shifting terrain of the COVID-19 pandemic and other life challenges; additional representations of encouragement in Canvas (such as what Paul communicates for difficult material) can only benefit student learning.

Taking these lessons into account, English departments, and, indeed, universities need to assess the role of Canvas and other LMSs in their classrooms, especially since COVID-19 has reoriented our thinking about learning in digital spaces. While some training is available in the form of workshops and colloquia, I doubt that writing instructors will seek these opportunities

out (especially if they can use their colleagues' or mentors' course sites as models). WPAs in particular can help to normalize questions and training needs with Canvas and other LMSs, and they can make department-specific training sessions for new and incoming writing instructors. While university-wide training would no doubt benefit any writing instructor, training through English departments and/or writing programs can address specific writing pedagogy needs. The instructor participants in this study wanted to make things easy and useful on Canvas for their students; the problem is that there is not a consensus in writing studies about how to do that in a more universal way. There is so much more to learn in digital studies about how such spaces afford and constrain learning (as well as an eagerness to use them), but scholars in writing studies and WPAs might pause and take stock: What is the role of an LMS in the writing classroom? How can writing instructors use LMSs in ways that extend the writing classroom usefully? How can students be part of this process rather than just the end-users? As we figure out what the role of online learning spaces is to be beyond the pandemic, I suspect this conversation is one we need to have regardless of whether or not we move into an endemic phase.

For Students and Learning

Perhaps like writing instructors, students eke out their own ways of using Canvas. Since writing instructors must make decisions about the kinds of pedagogical and technological resources that students use, it makes sense that students will sometimes approach and navigate Canvas in ways that are different from what their instructors (and, indeed, Canvas itself) intend. In my conversations with the students in this study, I learned that while most take somewhat predictable paths in their course sites, some students (e.g., Nate and Andres) are able to find new

and interesting ways of engaging with Canvas. It is these moments that can help writing instructors understand the kinds of information and designs that are most useful for students, and as a writing instructor, I learned a lot from the feedback that students gave for their instructors' course sites. Writing instructors need to ask students more directly about what is working and what is not working in a Canvas course site. Few students feel authorized to circumvent what they might see as obstacles in Canvas, which shows the power behind a writing instructor's ethos. It also shows that kind of power that the template of Canvas itself has. Perhaps one of the reasons why it is so difficult for instructors to try new things is because there is no feedback loop. If Canvas is simply a platform that writing instructors use (a sort of technology in the background of the class), then there might be no perceived need to interrogate their course sites with their students.

Relatedly, one the most important things that I learned from students in this study is that most of them do not read and engage with everything on Canvas. While this is likely not a new development, that students do not feel the need to read everything should signal to writing instructors that whatever content they create should be simple, direct, useful, and, to a degree, optional. Students such as Andres, who established his own orientation in Gary's course site using Files until Gary moved his lecture slides to Modules, strongly suggest that centralizing materials in one space helps to create an optimal navigation and reading experience. Students such as Sarah and Nate, who expressed resistance to participating in open discussion board spaces in Dagney's course site, suggest that giving students a choice up front about when to post (and about if and when to read others' posts) might help alleviate pressure students feel to go public with their work while underscoring the potential benefits of learning from others through modeling writing. Students such as Peter, who expressed frustration at how dates did not align in

Canvas, demonstrate how easy it is for technology to stifle engagement—even when there is no expectation for it. Depending on how much or how little writing instructors build into Canvas, they should make their expectations for what students should do in course sites as clear as possible.

Since instructor designs are somewhat subjective and based on instructors' life experiences and approaches, which I learned in Chapter 3, including students in conversations about design and organization in Canvas is key. The resistance and feedback that the students in this study gave show that they, too, can be partners in their own learning. Writing instructors should consider having a discussion with students on day one about the role of technologies like Canvas in students' learning; even surveying or asking students how things are going in Canvas can present opportunities for instructors to learn from them about their learning styles and preferences in digital spaces—which also arguably brings the theme of community full circle. At the beginning of each semester, when I deploy my course sites, I often tell my student to go ahead and play around with them, noting that there's nothing they can really break. Some navigations are unusual, but what matters is that students can navigate things in ways that make sense to them. One particularly sticky point in all of this is the role that students can play in helping to build useful, practical, and accessible course. I think it's safe to say that that students will take the path of least resistance in finding what they need. One thing I regret not asking is what students would like to see in their course sites. The onus of designing and deploying materials via Canvas falls squarely upon instructors, and so it might be worth thinking about how different things would be if students were part of the process.

For Instructional and Technology Support Units

In Chapters 1 and 2, I wrote at length about instructional consultants because consultation is part of my identity and has informed my views of Canvas throughout this process. Although this dissertation speaks primarily to scholars of writing instruction and digital spaces, instructional consultants can also benefit from learning more about observing asynchronous spaces like Canvas course sites. Perhaps in learning more about the architecture of extension, they can think with other writing instructors and faculty about how to optimize such spaces for their students. Instructional consultants in particular might be interested in the observation methods I developed from this dissertation. I created a resource for my institution's teaching and learning center around observing Canvas course sites asynchronously during the first year of the COVID-19 pandemic. I am not sure how many consultants have found this resource useful, but if online consulting remains in place after the pandemic, I hope that we will continue to have conversations about alternative means of observing instructors' courses. To this end, I maintain that looking at Canvas is essentially looking at part of a course. For many instructors, Canvas is something that operates in the background and something that they can leverage if and when they want to, but as many students in this study have affirmed, having something (a skeleton or a robust course site) is useful for their learning, and instructional consultants can help broker this conversation.

Instructional consultants can also play an important role in Canvas training as part of new and continuing professional development, even if it remains an optional tool in the end. As I have argued, Canvas can help to create (or enhance) a structure to support students as they plan and develop their writing, which could be argument that instructors use in their conversations with reluctant faculty members and graduate instructors. Many units for instructional support often include technologies (including Canvas) as part of their repertoire for workshops and

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training for new teachers, and in my own experience as a consultant, arguments for Canvas have tended to coalesce around specific tools and spaces *within* the platform (e.g., why a teacher might use Quizzes) rather than attending to the bigger picture of why teachers would use Canvas in the first place. Now that COVID-19 has created a moment for instructors, students, and other supporting units to reconsider the value(s) of LMSs, instructional consultants those seeking knowledge about Canvas to see how the platform can be a sort of non-human partner in teaching rather than simply a repository or tool. I suspect that it will take time and more research on LMSs to convince a wider range of instructors and faculty of this idea, but instructional consultants can help to move the conversation forward.

At first glance, it appears unclear where IT specialists feature in this stakeholdership, and although their collective influence goes relatively unseen, they still hold an influence over how Canvas displays content. For example, while people on the back-end of Canvas do not play a direct role in students' engagement or the creation of content (e.g., uploading assignments or posting to a thread in Discussions) that also occurs in that endeavor, I would wager that they aid developers by maintaining the look and function of Canvas. When students or instructors experience issues with accessing certain kinds of materials in a course site, they may consult with an IT specialist or a department administrator to rectify them. Unlike instructional support units, who can attend to the more pedagogical and practice-based aspects of instruction in Canvas, IT specialists can support instructors' efforts to extend their classrooms by ensuring that the tools instructors select function properly, as well as troubleshooting issues that prevent instructors from extending their classrooms (e.g., Modules not being switched to on, assignments and texts being inaccessible or invisible to students). IT specialists can also support students'

engagement in the same way, by, for example, ensuring that students can receive notifications or have the correct browser(s) and settings to access certain tools (such as third-party tools).

A Return to Positionality

In reflecting on this study and on my conversations with participants, I find myself transformed as an instructor and researcher. Before this study, I positioned myself—perhaps prematurely—as someone with knowledge of Canvas and other LMSs because of my background in teaching, and I come away from this experience with new ways of thinking about how instructors and students interact with technology, as well as more criticality and intention when I build course sites. My instructor and student participants have been the best teachers for me throughout this process. It might also be worth noting that I ended up changing some of my teaching habits as a result of my interactions with them. When I sensed that my student participants had a more contained sense of the usefulness of Canvas for their writing classes, I began to think about ways of simplifying and making things more direct in my own course sites. For example, as a result of interacting with my student participants, I now take nothing about Canvas for granted. I am always wondering if there is a better way to help them navigate their course sites, and, as much as possible, I try to bring some of what I put on Canvas back into the classroom so that the physical and digital parts always remain in conversation with each other. As I suggested in Chapter 1, Canvas is always part of the classroom, even if minimally.

I also changed how I teach thanks to what I learned from my instructor participants. For example, as a result of my interactions with Paul, I began using Announcements as a space to also clarify class topics and discussions. I don't know how helpful it was for my students, but it ended up helping me to extend the conversation a little more for them. As a result of interacting

with Gary, I began to use Google Docs for some of my classroom activities. Like Gary, I will even ask my students to engage in pre-writing in this space, though I do it collectively so that students who are absent can have a sense of what we talked about. As a result of interacting with Dagney, I use hyperlinks as much as possible, and I now use more bullet points with direct verbs as a means of reminding my students what they need to do. I even find myself adopting direct verbs in my lecture slides. Moving forward, I feel that scholars might produce research examining how writing instructors change their approaches to technology by observing what their fellow instructors do in other classes, as well as observing more directly what their students are doing in their own classes.

The Bottom Line

This dissertation shows that LMSs such as Canvas are part of the landscape of writing classrooms and that students are the ones who should be centered in their designs. Canvas, ultimately, serves as a map or blueprint for the direction, trajectory, and end-points of writing courses. Even if writing instructors use Canvas minimally, students, when asked, are likely to indicate that having some formatting structure is useful in their learning. Also, even if students indicate that they are fine with having no content on Canvas (or are fine with analog materials given to them in class), they are likely to see the value of having *some* kind content in Canvas— and particularly content that aligns with what they are doing in the physical classroom space. As I have suggested before, I see no deficit in instructors and students preferring not to use LMSs, but I contend that, for writing-intensive courses, there appears to be value in instructors building content in Canvas alongside their analog materials. Perhaps doing so can not only keep students tethered to their courses in different ways but also help them to see the writing process laid bare

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and show them their progress, their choices of engagement (or non-engagement), and their feedback matter.

Appendix A: Interview Protocols

A.1.1 For Gary

Beginning of semester interviews

1. How long have you been teaching writing? What kinds of topics or assignments do you like teaching in writing?
2. What is your course about? What are the writing goals and themes of your course?
    a. What kinds of writing skills do you want students learn in this course?
3. Does Canvas help you to realize those writing goals? Why or why not?
4. How do you value or assess engagement in your class? Do you have your students use Canvas for discussion or participation in some way?
5. How comfortable do you feel using technology in your classroom?
6. Have you ever used a course management system like Canvas before?
    a. As a teacher or as a student? What were those experiences like for you?
    b. Were you *trained* on how to use a course management system? If so, how?
7. If you didn't have Canvas, what would you use in its place (e.g., a Wordpress blog, nothing)?
8. Walk me through how you set up your course site in Canvas.
    a. What kinds of things are you using? Why?
    b. What kinds of things are you not interested in using? Why?
    c. What kinds of things would you like to do here that Canvas doesn't allow?
    d. Are you using other technologies outside of Canvas (e.g., Piazza, YouTube)?
9. How are you talking with your students about how they should use Canvas? Do you write instructions, or do you have discussions about this in class?
10. What do you want your students to be able to do with Canvas?
11. Do you feel that Canvas supports your students' writing? If so, how? If not, why not?

Middle of the semester

1. How have things in the course been going? How do you feel your students are doing?
2. How have things been going in Canvas?
    a. Has anything been particularly useful or challenging in your use of Canvas?
3. So, I am curious about some of the ways you have been framing your instructions and assignments through Canvas. Can we talk about that for a little bit?
4. In my observations, I noticed that you have been offering an overview and a hyperlink for your writing assignments. Can we talk about the "Module 1 Assessment DRAFT" for a moment?
    a. What was your purpose in your writing these instructions here?
    b. How much time and energy do you think your students put into this assignment?

     c. In your estimation, how useful has this assignment been for your students' learning to write a draft?

5. Can we talk about the "Module 1 Assessment" for a moment?
     a. What was your purpose in your writing these instructions here?
     b. How much time and energy do you think your students put into this assignment?
     c. In your estimation, how useful has this assignment been for your students' learning to write a paper?

6. In a couple of student interviews from the previous round, I learned that you also did away with the quiz function in Canvas and began using Google Docs for your students' fast writes. *This is not a judgement; I recognize that you are making specific choices in Canvas and have reasons for doing so.* Can we talk about that for a moment?
     a. Why did you make this change?
     b. Are you having your students access Google Docs through Canvas or outside of Canvas?
     c. How do you feel your students' writing through Google Docs compare to their writing through the quiz function?

7. In my observations, I notice that you write a wide range of announcements with advice, different offerings of resources, and reminders. Can we take a look at a couple of those?
     a. Can we talk about the announcement titled, "How to read less..."?
          i. What was your purpose in writing this announcement? Why this resource?
         ii. What was your purpose in presenting this information in this way?
       iii. Do you feel this announcement helped your students with reading less?
     b. Can we talk about the announcement titled, "SignUpGenius for the first conference"?
          i. What was your purpose in writing this announcement? Why this tool?
         ii. What was your purpose in presenting this information in this way?
       iii. How easy was it for students to access the conference tool here? Did you talk with your students about how to use this tool elsewhere?

8. What are your plans moving forward with these things in Canvas?
9. Is there anything else you would like to say about how things have been going in Canvas?

End of the semester

1. How have things been wrapping up for you in the course? How do you feel your students have been doing?
2. How have things been going in Canvas?
     a. Has anything been particularly useful or challenging in your use of Canvas?
3. So in this interview, I am curious about some of the smaller assignments that you build around the unit papers in this course. Can we talk about that for a minute?
4. In my observations, I noticed that your instructor has a few kinds of smaller assignments related to the larger unit papers. Can we talk about "Pre-Writing #5" under Module 3?
     a. What was this assignment about?
     b. How did you decide on this approach for this assignment?
     c. How do you see this assignment fitting into the larger goals of the final paper?

5. Another thing that I am curious about in this course site is your feedback and grading, especially since you touched on that in our last interview. Can we talk about that for a moment?
   a. How much feedback do you actually give through Canvas? Where else do students access their feedback?
   b. How do you give feedback for small assignments (e.g., quizzes, low-stakes writing)?
   c. How do you give feedback for large assignments (e.g., major papers)?
   d. What do you expect your students to do with this feedback when they receive it?
6. For the next part of this interview, I'd like to talk to you about your most recent major assignment and the final assignment for this course. I am interested in knowing what kinds of things students should use in Canvas (e.g., assignments, quizzes, files) or outside of Canvas (e.g., U-M Library, websites) as they are working on these things. I'm also interested in your approaches to these assignments.
   a. Can we first talk about the "Module 2 Assessment" under Module 2?
      i. How much time and energy did you put into crafting this assignment?
      ii. What sorts of supplemental materials did you create for this assignment? Are they in paper or digital form?
      iii. What kinds of things did you expect students to access through Canvas to help them with this assignment?
      iv. What kinds of things did you expect students to access outside of Canvas (e.g., U-M Library, websites) to help them with this assignment?
      v. What kind of feedback did you write (or are currently in the process of writing)?
   b. Can we go to "Module 3 Assessment" under Module 3? I know that students have not submitted this assignment yet, but I am curious about what your expectations are for their completing it.
      i. How much time and energy did you put into crafting this assignment?
      ii. What sorts of supplemental materials did you create for this assignment? Are they in paper or digital form?
      iii. What kinds of things do you expect students to access through Canvas to help them with this assignment?
      iv. What kinds of things do you expect students to access outside of Canvas (e.g., U-M Library, websites) to help them with this assignment?
      v. How much time and energy do you think your students will put into this assignment?
      vi. What kind of feedback do you think you will write for this assignment?
7. Looking back at the semester, how has your perception of Canvas changed or remained the same?
8. Is there anything you would do differently next semester? What would you add, keep the same, or take away?
9. What might you tell other writing instructors about the way you use Canvas?

A.1.2 For Gary's Students

Beginning of semester interviews

1. What is your major, or what are you currently interested in pursuing at the University of Michigan?
2. Do you like writing? Do you do any kind of writing outside of school?
3. Why did you decide to take this course?
4. How comfortable do you feel with technology? What other things do you use for writing (such as smartphone, smartpad)?
5. Have you ever used a course management system like Canvas before? If so, what was that experience like for you?
6. How is Canvas being used in your writing class?
    a. How does this compare with the way that Canvas is used in your *other* classes?
    b. How is your instructor telling you how to use Canvas? In other words, does your instructor give you instructions verbally in class? Do they tell you how to do it online or in your syllabus?
7. Can we take a look at the course site for a moment?
    a. Are you using the website version of Canvas or the app? Why?
    b. What do you think about the way your instructor has set things up here?
    c. What kinds of writing do you think you might do in Canvas?
    d. Do you think any of these things will be useful to your learning? Why or why not?

Middle of the semester

1. How have things been going for you in the course? How do you feel you're doing in the course?
2. How have things been going in Canvas?
    a. Has your instructor done anything new in Canvas that has been useful for your writing?
    b. Has anything happened that has been useful for your learning?
    c. Has anything happened that has been surprising or challenging?
3. Can we take a look at your Canvas course site for a moment?
4. In my observations, I notice that your instructor has been offering an overview and a hyperlink for your writing assignments. Can we take a look at the "Module 1 Assessment DRAFT" for a moment?
    a. What do you think about the instructions your teacher has put here?
    b. What was your process for completing this assignment?
    c. How much time and energy did you put into this assignment?
    d. How easy was it for you to know what you were supposed to do?
    e. How useful do you think these instructions are to your learning? Is there anything more or different you would want?
5. Can we take a look at "Module 1 Assessment" for a moment?
    a. What do you think about the instructions your teacher has put here?
    b. What was your process for completing this assignment?
    c. How much time and energy did you put into this assignment?
    d. How easy was it for you to know what you were supposed to do?

     e. How useful do you think these instructions are to your learning? Is there anything more or different you would want?

6. In a couple of the previous interviews, I learned that your instructor also did away with the quiz function in Canvas and began using Google Docs for your fast writes. Can we talk about that for a moment?
     a. Are you accessing Google Docs through Canvas or outside of Canvas?
     b. How does writing through Google Docs compare to writing through the quiz function?
     c. Does Google Docs make writing easier, more challenging, or different for you?

7. In my observations, I notice that your instructor has a wide range of announcements with advice, different offerings of resources, and reminders. Can we take a look at a couple of those?
     a. Can we take a look at the announcement titled, "How to read less..."?
        i. Did you read this announcement?
        ii. What do you think of what your instructor offered here?
        iii. What do you think of how it is *presented*?
        iv. Did this announcement help you (or not) with reading less?
     b. Can we take a look at the announcement titled, "SignUpGenius for the first conference"?
        i. Did you read this announcement?
        ii. What do you think of what your instructor offered here?
        iii. What do you think of how it is *presented*?
        iv. How easy was the conference tool to access here? Did you know about this tool elsewhere?

8. What are the biggest lessons you have learned about your writing by using Canvas this semester?

9. Is there anything else you would like to say about how things have been going in Canvas?

End of the semester

1. How have things been wrapping up for you in the course? How do you feel you've been doing?
2. How have things been going in Canvas?
3. Has your instructor done anything new in Canvas that has been useful to you?
     a. Has anything happened that has been useful for your learning?
     b. Has anything happened that has been surprising or challenging?
4. Can we take a look at your Canvas course site for a moment?
5. In my observations, I noticed that your instructor has a few kinds of smaller assignments related to the larger unit papers. Can we take a look at "Pre-Writing #5" under Module 3?
     a. What was this assignment about?
     b. How did you learn about what to do for this assignment?
     c. What did you do to prepare for this assignment?
     d. How useful was this assignment in thinking about your final paper?
6. Another thing that I am curious about in this course site is feedback and grading. Can we talk about that for a moment?

a. Does your instructor give you any feedback through Canvas? If not, where do you get it? Can you show me an example (if you are comfortable doing so)?
b. How does your instructor give you feedback for small assignments (e.g., quizzes, low-stakes writing)?
c. How does your instructor give you feedback for large assignments (e.g., major papers)?
d. What do you do with this feedback when you receive it?

7. For the next part of this interview, I'd like to ask you to walk me through your most recent major assignment and the final assignment for this course. I am interested in knowing what kinds of things you have open in Canvas (e.g., assignments, quizzes, files) or outside of Canvas (e.g., U-M Library, websites) as you are working on these things.

a. Can we first go to "Module 2 Assessment" under Module 2?
   i. When you were first considering this assignment, what is the first thing (or things) you opened in Canvas? Can we take a look at those things?
   ii. What paper materials did you look at to prepare for this assignment? Do you have some we could look at?
   iii. Did you use anything you already submitted through Canvas to help you prepare for this assignment?
   iv. Did you look at anything outside of Canvas (e.g., U-M Library, websites) to prepare for this assignment?
   v. What did you end up writing about?
   vi. How much time and energy would you say you put into this assignment?

b. Can we go to "Module 3 Assessment" under Module 3? I know that you have not submitted this assignment yet, but I am curious about what resources you plan to use for completing it.
   i. How much preparation have you done for this assignment already?
   ii. What is the first thing (or things) you will look at in Canvas to prepare for this assignment? Can we take a look at those things?
   iii. Do you have paper materials for this assignment already? Do you have some we could look at?
   iv. Have you completed any work through Canvas already to help you with this assignment? Will you be completing any work to this end?
   v. What sort of things might you look at outside of Canvas to help you with this assignment? Can you show me a couple of examples?
   vi. What are you planning to write about?
   vii. How much time and energy do you think you will put into this assignment?

8. Looking back at this semester, how has your perception of Canvas changed or remained the same?

9. If you had the power to change anything in this course site, would you? Would you replace anything, add more of something, or add less of something?

10. What might you tell other students looking to take this course about how your instructor uses Canvas?

A.2.1 For Dagney

Beginning of semester interviews

1. How long have you been teaching writing? What kinds of topics or assignments do you like teaching in writing?
2. What is your course about? What are the writing goals and themes of your course?
   a. What kinds of writing skills do you want students learn in this course?
3. Does Canvas help you to realize those writing goals? Why or why not?
4. How do you value or assess engagement in your class? Do you have your students use Canvas for discussion or participation in some way?
5. How comfortable do you feel using technology in your classroom?
6. Have you ever used a course management system like Canvas before?
   a. As a teacher or as a student? What were those experiences like for you?
   b. Were you *trained* on how to use a course management system? If so, how?
7. If you didn't have Canvas, what would you use in its place (e.g., a Wordpress blog, nothing)?
8. Walk me through how you set up your course site in Canvas.
   a. What kinds of things are you using? Why?
   b. What kinds of things are you not interested in using? Why?
   c. What kinds of things would you like to do here that Canvas doesn't allow?
   d. Are you using other technologies outside of Canvas (e.g., Piazza, YouTube)?
9. How are you talking with your students about how they should use Canvas? Do you write instructions, or do you have discussions about this in class?
10. What do you want your students to be able to do with Canvas?
11. Do you feel that Canvas supports your students' writing? If so, how? If not, why not?

Middle of the semester

1. How have things in the course been going? How do you feel your students are doing?
2. How have things been going in Canvas?
   a. Has anything been particularly useful or challenging in your use of Canvas?
3. So, I am curious about some of the ways you have been framing your instructions and assignments through Canvas. Can we talk about that for a little bit?
4. In my observations, I noticed that you provide a lot of structure, guidance, and even coding in your writing assignments on Canvas. Can we talk about the "Peer Review Feedback Letters (Literacy Narrative Partial Draft")" in Unit 1?
   a. What was your purpose in your writing these instructions here?
   b. What was your purpose in structuring this information in this way?
   c. How much time and energy do you think your students put into this assignment?
   d. In your estimation, how useful has this assignment been for your students' learning to write feedback letters?
5. Can we talk about the "Rhetorical Analysis Partial Draft (min. 500 words)" in Unit 2?
   a. What was your purpose in your writing these instructions here?
   b. What was your purpose in structuring this information in this way?
   c. How much time and energy do you think your students put into this assignment?
   d. In your estimation, how useful has this assignment been for your students' learning to draft papers?

6. In my observations, I also notice that you provide hyperlinks for almost all of the posts and instructions that she provides in Canvas. Can we talk about that for a moment?
   a. Why is hyperlinking important for your instructions in Canvas?
   b. Do you hyperlink to every relevant resource for a particular announcement or assignment, or do you make decisions about which resources are the most important to link to?
7. In my observations, I also notice that you have a specific structure for how you write announcements. Can we talk about a couple of those?
   a. Can we take a look at the announcement titled, "Wed. 10/02"?
      i. What was your purpose in writing this announcement? Why these linked resources?
      ii. What was your purpose in presenting this information in this way?
      iii. Do you feel this announcement helped your students learn about rhetorical analysis?
   b. Can we take a look at the announcement titled, "Wed. 10/16"?
      i. What was your purpose in writing this announcement? Why these resources?
      ii. What was your purpose in presenting this information in this way?
      iii. Do you feel this announcement helped your students learn about peer review letters?
8. What are your plans moving forward with these things in Canvas?
9. Is there anything else you would like to say about how things have been going in Canvas?

End of the semester

1. How have things been wrapping up for you in the course? How do you feel your students have been doing?
2. How have things been going in Canvas?
   a. Has anything been particularly useful or challenging in your use of Canvas?
3. So in this interview, I am curious about some of the smaller assignments that you build around the unit papers in this course. Can we talk about that for a minute?
4. In my observations, I noticed that your instructor has a few kinds of smaller assignments related to the larger unit papers. Can we talk about "LSWA: Multimodal Argument Proposal" in Discussions?
   a. What was this assignment about?
   b. How did you decide on this approach for this assignment?
   c. How do you see this assignment fitting into the larger goals of the final project?
5. Another thing that I am curious about in this course site is your feedback and grading, especially since you touched on that in our last interview. Can we talk about that for a moment?
   a. How much feedback do you actually give through Canvas? Where else do students access their feedback?
   b. How do you give feedback for small assignments (e.g., quizzes, low-stakes writing)?
   c. How do you give feedback for large assignments (e.g., major papers)?
   d. What do you expect your students to do with this feedback when they receive it?

6. For the next part of this interview, I'd like to talk to you about your most recent major assignment and the final assignment for this course. I am interested in knowing what kinds of things students should use in Canvas (e.g., assignments, quizzes, files) or outside of Canvas (e.g., U-M Library, websites) as they are working on these things. I'm also interested in your approaches to these assignments.

   a. Can we first talk about the "ROGERIAN ARGUMENT (Final Draft)" in Unit 3?
      i. How much time and energy did you put into crafting this assignment?
      ii. What sorts of supplemental materials did you create for this assignment? Are they in paper or digital form?
      iii. What kinds of things did you expect students to access through Canvas to help them with this assignment?
      iv. What kinds of things did you expect students to access outside of Canvas (e.g., U-M Library, websites) to help them with this assignment?
      v. What kind of feedback will you be writing (or are currently in the process of writing)?

   b. Can we go to "Module 3 Assessment" under Module 3? I know that students have not submitted this assignment yet, but I am curious about what your expectations are for their completing it.
      i. How much time and energy did you put into crafting this assignment?
      ii. What sorts of supplemental materials did you create for this assignment? Are they in paper or digital form?
      iii. What kinds of things do you expect students to access through Canvas to help them with this assignment?
      iv. What kinds of things do you expect students to access outside of Canvas (e.g., U-M Library, websites) to help them with this assignment?
      v. How much time and energy do you think your students will put into this assignment?
      vi. What kind of feedback do you think you will write for this assignment?

7. Looking back at the semester, how has your perception of Canvas changed or remained the same?

8. Is there anything you would do differently next semester? What would you add, keep the same, or take away?

9. What might you tell other writing instructors about the way you use Canvas?

A.2.2. For Students in Dagney's Class

Beginning of semester interviews

1. What is your major, or what are you currently interested in pursuing at the University of Michigan?
2. Do you like writing? Do you do any kind of writing outside of school?
3. Why did you decide to take this course?
4. How comfortable do you feel with technology? What other things do you use for writing (such as smartphone, smartpad)?
5. Have you ever used a course management system like Canvas before? If so, what was that experience like for you?

6. How is Canvas being used in your writing class?
    a. How does this compare with the way that Canvas is used in your *other* classes?
    b. How is your instructor telling you how to use Canvas? In other words, does your instructor give you instructions verbally in class? Do they tell you how to do it online or in your syllabus?
7. Can we take a look at the course site for a moment?
    a. Are you using the website version of Canvas or the app? Why?
    b. What do you think about the way your instructor has set things up here?
    c. What kinds of writing do you think you might do in Canvas?
    d. Do you think any of these things will be useful to your learning? Why or why not?

Middle of the semester

1. How have things been going for you in the course? How do you feel you're doing in the course?
2. How have things been going in Canvas?
    a. Has your instructor done anything new in Canvas that has been useful for your writing?
    b. Has anything happened that has been useful for your learning?
    c. Has anything happened that has been surprising or challenging?
3. Can we take a look at your Canvas course site for a moment?
4. In my observations, I noticed that your instructor provides a lot of structure, guidance, and coding in your writing assignments on Canvas. Can we take a look at the "Peer Review Feedback Letters (Literacy Narrative Partial Draft") in Unit 1?
    a. What do you think about the instructions your teacher has put here?
    b. What was your process for completing this assignment?
    c. How much time and energy did you put into this assignment?
    d. How easy was it for you to know what you were supposed to do?
    e. How useful do you think these instructions are to your learning? Is there anything more or different you would want?
5. Can we take a look at the "Rhetorical Analysis Partial Draft (min. 500 words)" in Unit 2?
    a. What do you think about the instructions your teacher has put here?
    b. What was your process for completing this assignment?
    c. How much time and energy did you put into this assignment?
    d. How easy was it for you to know what you were supposed to do?
    e. How useful do you think these instructions are to your learning? Is there anything more or different you would want?
6. In my observations, I also notice that your instructor provides hyperlinks for almost all of the posts and instructions that she provides in Canvas. Can we talk about that for a moment?
    a. Do you click on these hyperlinks when your instructor provides them?
    b. How often do you refer to these hyperlinked items when you are completing a task or writing a paper? Can you give me an example?
7. In my observations, I also notice that your instructor has a specific structure for how she writes announcements. Can we take a look at a couple of those?

     a. Can we take a look at the announcement titled, "Wed. 10/02"?
         i. Did you read this announcement?
         ii. What do you think of what your instructor offered here?
         iii. What do you think of how it is *presented*?
         iv. Did this announcement help you better understand rhetorical analysis?

8. Can we take a look at the announcement titled, "Wed. 10/16"?
         i. Did you read this announcement?
         ii. What do you think of what your instructor offered here?
         iii. What do you think of how it is *presented*?
         iv. Did this announcement help you better understand writing peer review letters?

9. What are the biggest lessons you have learned about your writing by using Canvas this semester?

10. Is there anything else you would like to say about how things have been going in Canvas?

End of the semester

1. How have things been wrapping up for you in the course? How do you feel you've been doing?

2. How have things been going in Canvas?

3. Has your instructor done anything new in Canvas that has been useful to you?
     a. Has anything happened that has been useful for your learning?
     b. Has anything happened that has been surprising or challenging?

4. Can we take a look at your Canvas course site for a moment?

5. In my observations, I noticed that your instructor has added another discussion board post to the course site. Can we take a look at "LSWA: Multimodal Argument Proposal" in Discussions?
     a. What are you proposing for this assignment?
     b. How much do/did the samples your instructor provided shape your proposal?
     c. How much do/did what your classmates wrote shape your proposal?

6. Another thing that I am curious about in this course site is feedback and grading. Can we talk about that for a moment?
     a. Does your instructor give you any feedback through Canvas? If not, where do you get it? Can you show me an example (if you are comfortable doing so)?
     b. How does your instructor give you feedback for small assignments (e.g., quizzes, low-stakes writing)?
     c. How does your instructor give you feedback for large assignments (e.g., major papers)?
     d. What do you do with this feedback when you receive it?

7. For the next part of this interview, I'd like to ask you to walk me through your most recent major assignment and the final assignment for this course. I am interested in knowing what kinds of things you have open in Canvas (e.g., assignments, quizzes, files) or outside of Canvas (e.g., U-M Library, websites) as you are working on these things.
     a. Can we first go to "ROGERIAN ARGUMENT (Final Draft)" in Unit 3?
         i. When you were first considering this assignment, what is the first thing (or things) you opened in Canvas? Can we take a look at those things?

      ii. What paper materials did you look at to prepare for this assignment? Do you have some we could look at?

      iii. Did you use anything you already submitted through Canvas to help you prepare for this assignment?

      iv. Did you look at anything outside of Canvas (e.g., U-M Library, websites) to prepare for this assignment?

      v. What did you end up writing about?

      vi. How much time and energy would you say you put into this assignment?

  b. Can we go to the "125 Multimodal Argument Prompt" assignment sheet in Unit 4? I know that you have not submitted this assignment yet, but I am curious about what resources you plan to use for completing it.

      i. How much preparation have you done for this assignment already?

      ii. What is the first thing (or things) you will look at in Canvas to prepare for this assignment? Can we take a look at those things?

      iii. Do you have paper materials for this assignment already? Do you have some we could look at?

      iv. Have you completed any work through Canvas already to help you with this assignment? Will you be completing any work to this end?

      v. What sort of things might you look at outside of Canvas to help you with this assignment? Can you show me a couple of examples?

      vi. What are you planning to make?

      vii. How much time and energy do you think you will put into this assignment?

8. Looking back at this semester, how has your perception of Canvas changed or remained the same?

9. If you had the power to change anything in this course site, would you? Would you replace anything, add more of something, or add less of something?

10. What might you tell other students looking to take this course about how your instructor uses Canvas?

A.3.1 For Paul

Beginning of semester interviews

1. How long have you been teaching writing? What kinds of topics or assignments do you like teaching in writing?

2. What is your course about? What are the writing goals and themes of your course?

  a. What kinds of writing skills do you want students learn in this course?

3. Does Canvas help you to realize those writing goals? Why or why not?

4. How do you value or assess engagement in your class? Do you have your students use Canvas for discussion or participation in some way?

5. How comfortable do you feel using technology in your classroom?

6. Have you ever used a course management system like Canvas before?

  a. As a teacher or as a student? What were those experiences like for you?

  b. Were you *trained* on how to use a course management system? If so, how?

7. If you didn't have Canvas, what would you use in its place (e.g., a Wordpress blog, nothing)?
8. Walk me through how you set up your course site in Canvas.
   a. What kinds of things are you using? Why?
   b. What kinds of things are you not interested in using? Why?
   c. What kinds of things would you like to do here that Canvas doesn't allow?
   d. Are you using other technologies outside of Canvas (e.g., Piazza, YouTube)?
9. How are you talking with your students about how they should use Canvas? Do you write instructions, or do you have discussions about this in class?
10. What do you want your students to be able to do with Canvas?
11. Do you feel that Canvas supports your students' writing? If so, how? If not, why not?

Middle of the semester interviews

1. How have things in the course been going? How do you feel your students are doing?
2. How have things been going in Canvas?
   a. Has anything been particularly useful or challenging in your use of Canvas?
3. So, I am curious about some of the ways you have been framing your instructions and assignments through Canvas. Can we talk about that for a little bit?
4. In my observations, I notice that you post instructions for certain assignments and tasks, but not for others. *This is not a judgement; I recognize that you are making specific choices in Canvas and have reasons for doing so.* Can we talk about the "Antigone Close Reading" assignment for a moment?
   a. What was your purpose in your writing these instructions here?
   b. How much time and energy do you think your students put into this assignment?
   c. In your estimation, how useful has this assignment been for your students' learning to do close reading?
5. Can we talk about the final draft for the first assignment? I notice that you didn't post anything for this assignment.
   a. Why did you not include instructions here? Where do your students access (or learn about) the instructions?
   b. Have your students been able to fulfill the assignment requirements?
   c. How much time and energy do you think your students put into this assignment?
6. In my observations, I also noticed that while you provide a lot of organization and structure up front, you don't populate a lot of these assignments and tasks with text overall. Can we talk about that for a moment?
   a. Why do you post instructions for certain assignments and tasks but not for others?
   b. Do you think your students are able to generally fulfill the assignment requirements and course objectives without written instruction in Canvas?
7. In my observations, I also noticed that you write a wide range of announcements with advice, different offerings of resources, and reminders. Can we talk about a couple of those?
   a. Can we talk about the announcement titled, "Assignment Sheet+Example+Close Reading Advice"?
      i. What was your purpose in writing this announcement?
      ii. What was your purpose in presenting this information in this way?

            iii. Do you feel this announcement helped your students with close reading?
     b. Can we take a look at the announcement titled, "Sample Essay"?
          i. What was your purpose in writing this announcement?
          ii. What was your purpose in presenting this information in this way?
          iii. Do you feel that this assignment is helping your students with their upcoming paper?
8. What are your plans moving forward with these things in Canvas?
9. Is there anything else you would like to say about how things have been going in Canvas?

End of the semester interviews

1. How have things been wrapping up for you in the course? How do you feel your students have been doing?
2. How have things been going in Canvas?
     a. Has anything been particularly useful or challenging in your use of Canvas?
3. So in this interview, I am curious about the process of how you create or change assignments in Canvas. Can we talk about that for a minute?
4. In my observations of the announcements, I noticed that you asked your students to post a quiz replacement for one of your most recent quizzes. Can we talk about the "Madness and Civilization pt. 3 Quiz" in the daily engagement section of the assignments for a moment?
     a. What was this quiz about?
     b. What was this quiz replacement about? Did something change?
     c. Generally speaking, how do you decide what to quiz students on?
5. Another thing that I am curious about in this course site is your feedback and grading, especially since you talked about your experience grading through Canvas in our last interview. Can we talk about that for a moment?
     a. How much feedback do you actually give through Canvas? Where else do students access their feedback?
     b. How do you give feedback for small assignments (e.g., quizzes, low-stakes writing)?
     c. How do you give feedback for large assignments (e.g., major papers)?
     d. What do you expect your students to do with this feedback when they receive it?
6. For the next part of this interview, I'd like to talk to you about your most recent major assignment and the final assignment for this course. I am interested in knowing what kinds of things students should use in Canvas (e.g., assignments, quizzes, files) or outside of Canvas (e.g., U-M Library, websites) as they are working on these things. I'm also interested in your approaches to these assignments.
     a. Can we first talk about the "Final Draft+Reverse Outline" in Unit 2 of your assignments?
          i. How much time and energy did you put into crafting this assignment?
          ii. What sorts of supplemental materials did you create for this assignment? Are they in paper or digital form?
          iii. What kinds of things did you expect students to access through Canvas to help them with this assignment?

<ol start="4">
<li style="list-style-type: lower-roman" value="4">What kinds of things did you expect students to access outside of Canvas (e.g., U-M Library, websites) to help them with this assignment?
<li style="list-style-type: lower-roman">How much time and energy would you say your students put into this assignment?
<li style="list-style-type: lower-roman">What kind of feedback did you write (or are currently in the process of writing)?

    b. Can we go to "Final Draft+Reverse Outline" in Unit 3 of your assignments? I know that students have not submitted this assignment yet, but I am curious about what your expectations are for their completing it.

<ol style="list-style-type: lower-roman">
How much time and energy did you put into crafting this assignment?
What sorts of supplemental materials did you create for this assignment? Are they in paper or digital form?
What kinds of things do you expect students to access through Canvas to help them with this assignment?
What kinds of things do you expect students to access outside of Canvas (e.g., U-M Library, websites) to help them with this assignment?
How much time and energy do you think your students will put into this assignment?
What kind of feedback do you think you will write for this assignment?

<ol start="7">
Looking back at the semester, how has your perception of Canvas changed or remained the same?
Is there anything you would do differently next semester? What would you add, keep the same, or take away?
What might you tell other writing instructors about the way you use Canvas?

A.3.2 For Students in Paul's Class

Beginning of semester interviews

What is your major, or what are you currently interested in pursuing at the University of Michigan?
Do you like writing? Do you do any kind of writing outside of school?
Why did you decide to take this course?
How comfortable do you feel with technology? What other things do you use for writing (such as smartphone, smartpad)?
Have you ever used a course management system like Canvas before? If so, what was that experience like for you?
How is Canvas being used in your writing class?
  <ol style="list-style-type: lower-alpha">
  How does this compare with the way that Canvas is used in your *other* classes?
  How is your instructor telling you how to use Canvas? In other words, does your instructor give you instructions verbally in class? Do they tell you how to do it online or in your syllabus?

Can we take a look at the course site for a moment?
  <ol style="list-style-type: lower-alpha">
  Are you using the website version of Canvas or the app? Why?
  What do you think about the way your instructor has set things up here?
  What kinds of writing do you think you might do in Canvas?

    d. Do you think any of these things will be useful to your learning? Why or why not?

Middle of the semester

1. How have things been going for you in the course? How do you feel you're doing in the course?
2. How have things been going in Canvas?
    a. Has your instructor done anything new in Canvas that has been useful for your writing?
    b. Has anything happened that has been useful for your learning?
    c. Has anything happened that has been surprising or challenging?
3. Can we take a look at your Canvas course site for a moment?
4. In my observations, I notice that your instructor posts instructions for certain assignments, but not for others. Can we take a look at "Antigone Close Reading" for a moment?
    a. What do you think about the instructions your teacher has put here?
    b. What was your process for completing this assignment?
    c. How much time and energy did you put into this assignment?
    d. How easy was it for you to know what you were supposed to do?
    e. How useful do you think these instructions are to your learning? Is there anything more or different you would want?
5. Can we take a look at the final draft for the first assignment? I notice that your instructor has not posted anything for this assignment.
    a. What do you think about this?
    b. Where did you access (or learn about) the instructions?
    c. What was your process for completing this assignment?
    d. How much time and energy did you put into this assignment?
    e. How easy was it for you to know what you were supposed to do?
    f. Do you feel that you were able to complete this paper without instructions in Canvas?
6. In my observations, I also noticed that your instructor does not actually give a lot of detail or instruction throughout the course site in general. Can we talk about that for a moment?
    a. What do you think about the minimalist approach your instructor has taken here?
    b. Do you think you would benefit from more detail in Canvas, or are the in-class instructions enough?
    c. Is there anything more or different you would want?
7. In my observations, I also noticed that your instructor has a wide range of announcements with advice, different offerings of resources, and reminders. Can we take a look at a couple of those?
    a. Can we take a look at the announcement titled, "Assignment Sheet+Example+Close Reading Advice"?
        i. Did you read this announcement?
        ii. What do you think of what your instructor offered here?
        iii. What do you think of how it is *presented*?

        iv. Did this announcement help you (or not) with close reading?
    b. Can we take a look at the announcement titled, "Sample Essay"?
        i. Have you read this announcement?
        ii. What do you think of what your instructor is offering here?
        iii. What do you think of how it is *presented*?
        iv. Does this announcement help you (or not) with writing the upcoming paper?

8. What are the biggest lessons you have learned about your writing by using Canvas this semester?
9. Is there anything else you would like to say about how things have been going in Canvas?

End of the semester

1. How have things been wrapping up for you in the course? How do you feel you've been doing?
2. How have things been going in Canvas?
3. Has your instructor done anything new in Canvas that has been useful to you?
    a. Has anything happened that has been useful for your learning?
    b. Has anything happened that has been surprising or challenging?
4. Can we take a look at your Canvas course site for a moment?
5. In my observations of the announcements, I noticed that your instructor asked you to post a quiz replacement for one of your most recent quizzes. Can we take a look at the "Madness and Civilization pt. 3 Quiz" in the daily engagement section of the assignments for a moment?
    a. What was this quiz about?
    b. What was the quiz replacement about?
    c. How did you learn about what to do for this assignment?
    d. What did you do to prepare for this assignment?
6. Another thing that I am curious about in this course site is feedback and grading. Can we talk about that for a moment?
    a. Does your instructor give you any feedback through Canvas? If not, where do you get it? Can you show me an example (if you are comfortable doing so)?
    b. How does your instructor give you feedback for small assignments (e.g., quizzes, low-stakes writing)?
    c. How does your instructor give you feedback for large assignments (e.g., major papers)?
    d. What do you do with this feedback when you receive it?
7. For the next part of this interview, I'd like to ask you to walk me through your most recent major assignment and the final assignment for this course. I am interested in knowing what kinds of things you have open in Canvas (e.g., assignments, quizzes, files) or outside of Canvas (e.g., U-M Library, websites) as you are working on these things.
    a. Can we first go to "Final Draft+Reverse Outline" in Unit 2 of your assignments?
        i. When you were first considering this assignment, what is the first thing (or things) you opened in Canvas? Can we take a look at those things?
        ii. What paper materials did you look at to prepare for this assignment? Do you have some we could look at?

      iii. Did you use anything you already submitted through Canvas to help you prepare for this assignment?

      iv. Did you look at anything outside of Canvas (e.g., U-M Library, websites) to prepare for this assignment?

      v. What did you end up writing about?

      vi. How much time and energy would you say you put into this assignment?

  b. Can we go to "Final Draft+Reverse Outline" in Unit 3 of your assignments? I know that you have not submitted this assignment yet, but I am curious about what resources you plan to use for completing it.

      i. How much preparation have you done for this assignment already?

      ii. What is the first thing (or things) you will look at in Canvas to prepare for this assignment? Can we take a look at those things?

      iii. Do you have paper materials for this assignment already? Do you have some we could look at?

      iv. Have you completed any work through Canvas already to help you with this assignment? Will you be completing any work to this end?

      v. What sort of things might you look at outside of Canvas to help you with this assignment? Can you show me a couple of examples?

      vi. What are you planning to write about?

      vii. How much time and energy do you think you will put into this assignment?

8. Looking back at this semester, how has your perception of Canvas changed or remained the same?

9. If you had the power to change anything in this course site, would you? Would you replace anything, add more of something, or add less of something?

10. What might you tell other students looking to take this course about how your instructor uses Canvas?

Appendix B: Codebook

In this Appendix, I offer a codebook that delineates the major themes, categories, and codes that emerged in my participant data. Participant examples are denoted by their status as student (S) or instructor (I) and by the interviews in which their utterances appear (1-3).

Table 1: Coordination of Canvas. This category refers to the structures and pathways through which users able to find, access, and use tools and resources in Canvas. For example, student participants talk about the ways they orient themselves when they first log into Canvas.

Customization: This theme refers to moments in which participants talk about changing or customizing things in their Canvas course site. For example, some instructor participants express desires for having more aesthetic options when they plan their course sites.		
Code	Definition	Example
Expression	When a participant talks about customization in terms of expression.	Paul (I1): "I know this sounds weird, but I would enjoy if there was a higher degree of customization when it comes to the aesthetics of the website if I'm being completely honest. I find this to be a little dry and a little technical, so it doesn't allow for as much individual expression on the part of the instructor."
Musical	When a participant talks about customization in terms of music.	Paul (I1): "I don't know if I can do it, I've never used this before, and I just didn't have time for it, but I wanted to create a playlist of songs that deal with the theme of this course because it's just ubiquitous."
Spatial	When a participant talks about customization in terms of spatial relationships.	Nate (S2): "It does clutter a little bit, I suppose, from a visual design aspect, it clutters the page because you have this right here, followed by here and here, and you just look at the spatial coordination of these three, and it doesn't make the design aspect of my brain super happy."
Visual	When a participant talks about customization in terms of visual themes.	Dagney (I1): "So, like I said about the aesthetics, I think I would like for it to ... It would be neat if you could choose different themes, sort of like WordPress, so that it could have a kind of ethos besides that institutional ethos."

Accessibility: This theme refers to moments in which participants talk about (or define) accessibility in their interactions with Canvas. For example, some student participants define accessibility as "having things right there."		
Code	Definition	Example
Reducing time	When a participant defines accessibility in terms of how it reduces the amount of time it takes to do something.	Dagney (I1): "I want to say that Canvas probably has very direct ways of helping me and my class realize these goals, but I think that the way that I conceptualize Canvas is that it helps students take less time getting materials, or wondering wait what exactly?"
Hardware access	When a participant defines accessibility in terms of what kinds of hardware are available (or how hardware makes something accessible).	Rachel (S1): "So let's say I forget my laptop somewhere, I can use my phone, or I can use any of the computers in the computer labs, like if I need to print something. If it was a hard copy ... I mean it's good to always have hard copies, too, but it's nice to have another copy online, so that's the accessibility part."
Consolidating access	When a participant defines accessibility as a means of simplifying or paring down the number of steps or tools.	Dagney (I1): "But when it comes to just the enormity of things that you have to do to be organized, in terms of a class and to keep up with the assignments, there are so many little steps. And so, if the little steps can be made easier or consolidated, or something like that, yeah, then the students can focus more, hopefully, on the content. Yeah."
Having things right there	When a participant defines accessibility in terms of keeping important things together in one space.	Peter (S1): "Lots of important stuff is here and that goes more into what I was saying before, accessibility. It's very easy. You can get to all your stuff right here. So that's my favorite thing."
Finding things easily	When a participant defines accessibility in terms of how easy it is to find things on Canvas.	Peter (S1): "You can just view it very easily instead of having to go through your syllabus and then looking where you need to find it or like, I don't know, maybe you're unorganized and it gets lost somewhere."

Reading in Canvas: This theme refers to moments in which participants talk about or narrate their reading experiences in Canvas. For example, some student participants talk about the things they tend to read first when an instructor posts an announcement or assignment.		
Code	Definition	Example
Struggling with reading	When a participant talks about difficulties with reading something on Canvas.	Iris (S2): "I think it was really wordy. At first, I was intimidated by it because it was so much of just text on text. At first, I didn't want to read it, but then it was the title that

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		said, it's like example, closer to getting advice, that I was like I should read it."
Overlooking important information	When a participant talks about missing important details when they are reading.	Nate (S2): "Obviously, the intention is that you should sit down and read this carefully because it isn't an assignment that you're going to turn in; however, this particular one is a very large block of text, and I think it's very easy to lose people in this."
Complete reading	When a participant talks about reading everything that is presented to them in Canvas.	Jacob (S2): "And so I'll read the assignment. I would definitely read all these, both this header, the detail and then the PDF. I definitely would read everything and then probably start the assignment."
Prioritizing reading	When a participant talks about reading some things first (or reading some things *instead* of others).	Brianna (S2): "So if you don't want to necessarily read everything he has to say, you can just click the document and then there it is. But yeah, I think it's nice that it's short and sweet and it's not super lengthy because I feel if it's lengthy, you're not going to actually read."

Information Delivery: This theme refers to moments in which participants talk about the appearance and delivery of instructions or advice in Canvas. For example, some student participants talk about the formatting of their instructors' directions.		
Code	Definition	Example
Titles	When a participant talks about the effectiveness of titles in conveying important information.	Andres (S2): "I feel like with a title, even with a small thing here, it is very difficult to include all of the necessary details. So, I guess, with the PDF, I think the expectations are very clear, in terms of what I need to do and what I'll be graded on."
Hyperlinks	When a participant talks about the effectiveness of linked resources and materials in conveying important information.	Dagney (I2): "Generally if it exists somewhere in the Canvas files, I link to it every time. If it doesn't already exist, if it's really important that they have access to that document in one way or another. So, for example, the rubric, then I will upload it and then link to it."
Word choice	When a participant talks about word choice in connecting important information to students.	Gary (I1): "I'm always like, "Hey, team," or "Check it out, team," so I try and keep it a little bit informal. I try and acknowledge shared purpose in all of my communications with them in the hopes that they will at some level pick up on that."

Number of words	When a participant talks about the number of words in conveying important information.	Peter (S2): "I mean, it's brief. It's what you need to get out of in terms of an assignment description at a general level. Obviously, he gave us some more complicated handout, which showed a lot more in-depth, but as a description of what you're doing, it's fine, I think. It does its job really well."
Order of items	When participants talk about separations or hierarchies of information.	Dagney (I2): "So I put in one of those horizontal lines that is actually kind of a pain in the butt to put in because what's above the line is the assignment and what's below the line is a link if they want to rewatch the video that we watched in class. So, I like to separate those because what's above the line, you absolutely have to do what's below the line is sort of optional, just interest based."
Formatting of words	When participants talk about how words are formatted in conveying important information.	Sarah (S2): "This is what you see first, so this is kind of what's more important. And here it's just like a resource that we already went over. And then also the bolded, also it catches your attention. That's the first thing that you notice or read."

Tools: This theme refers to moments in which participants talk explicitly about the tools that they use in and outside of Canvas. For example, some student participants talk about using programs outside of Canvas.		
Code	Definition	Example
Using (or not) mobile devices	When participants talk about whether or not they use mobile devices when accessing Canvas.	Peter (S1): "I don't usually use my smartphone, actually. I like using my computer mainly for writing, unless it's required of me to write on paper. I generally tend to use a computer just because I type faster than I physically write. Typing on my phone is faster than physically writing, but I just don't. It's too small."
Using hardware	When participants talk about the kinds of hardware when accessing Canvas or other digital spaces.	Jacob (S1): "Well, for me, personally I'm very good on the keyboard so when I'm writing I often would say I prefer to use the computer rather than writing because I'm just so much faster and I get my ideas down quicker on the computer that I could by hand. So, I'd say definitely I use technology to aid in typing my work."
Experiences using other CMSs	When participants reflect on their experiences using other course	Andres (S2): "Something that I learned from writing through Moodle was these forum chats. I

	management system prior to this study.	used to do where you do a discussion, and comment and another peer's comment about the writing or something. And I think that was interesting because I got to learn about what my peers thought about their content through Moodle."
Using tools outside of Canvas	When participants talk about using other tools and platforms outside of Canvas.	Brianna (S1): "I'll use the sticky notes on my computer too, to write down tasks and stuff. Just if I had a pressing concern. Then I also use Google calendar. Recently I've been using the ... they have tasks under Google calendar. That's how I've been keeping track of what my assignments are due and stuff."

Online: This theme refers to moments in which participants talk about the activities and resources that take place in an online format. For example, some instructor and student participants talk about digital resources as a way to save paper.

Code	Definition	Example
Digital reading	When participants talk about reading that takes places in online spaces.	Gary (I1): "That is a sort of facetious response, but it is the case that with the move to a digital classroom, I can feel very confident about making the texts accessible through Canvas and knowing that my students have access and are probably reading those texts."
Digital resources	When participants talk about making class resources available in a digital format (typically via Canvas).	Gary (I1): "Well, all the documents I've been giving them are all digital, so I need a way to share a digital document in a way that draws attention to it. I don't want to just dump it into the module and have it just show up there, because I don't think that they're really paying enough attention to the state of the modules to really notice that, oh, there's something there that wasn't there yesterday."
Digital feedback	When participants talk about giving feedback digitally.	Paul (I2): "And what I discovered is that I think that the Canvas grading, the speed grader, is really good. I enjoy it a lot and I enjoy it in ways I didn't think I would enjoy it. So for a couple of people, I graded them that way and I was actually able to give them... Of course, I wasn't able to give as much grammatical feedback, like the line editing feedback."

Saving trees	When participants talk about saving on paper as a rationale for going digital.	Gary (I1): "I don't see students taking the trouble to print things out for themselves. When I ask students if they would like a paper copy for things that I do make copies of, like the syllabus, I do that and I let them know if you prefer a paper copy, email me and I will bring paper copies, but I haven't had any takers yet for 125."
Online assignment	When participants talk about assignments made available online (typically via Canvas).	Rachel (S3): "Written assignments and reflections are always submitted online, but the quizzes we do in class are written quizzes. I think he just has this, just so he knows he has to submit a grade for that, but the quizzes are taken. I have a class that has online quizzes, which is nice, but these quizzes are in class."

Analog: This theme refers to moments in which participants talk about the activities and resources that take place in a paper format. For example, some student participants talk about the paper handouts that they receive in class (some of which may also be on Canvas).

Code	Definition	Example
Photocopy	When participants talk about photocopies of assignments and other course materials.	Iris (S3): "It's usually not a lot, but especially for essay, he'll give comments, or he'll submit a photocopy of our essay. Just the feedback on the essay."
Course pack	When participants talk about paper course packs.	Nate (S1): "I will say that as one of the course requirements, we are to print out this course pack. It is not technically necessary. If we wanted to speak there and change that we can if we want to go paperless."
Handwritten	When participants talk about information that is handwritten.	Dagney (I3): "I give a lot of handwritten feedback which would probably be more effective in Canvas, and I include like a short-handwritten letter. So, it's about a half page handwritten. I keep emphasizing handwritten because my hands hurt by the time it's done. So yeah."
Hardcopy	When participants talk about handing out or receiving hardcopies of course materials.	Paul (I2): "Well, I give them a whole assignment sheet. I usually print out the assignment sheets and copy them for them and then I hand them out in class, and then we spend a long time going over the assignment sheet. So that's why I don't put anything on the Canvas website."

Navigation: This theme refers to moments in which participants talk about how they navigate tools and resources in Canvas. For example, some student participants talk about how they locate their instructors' updates in the course site.		
Code	Definition	Example
Locating comments	When participants talk about locating important information in the instructor's comments.	Andres (S3): "Because he said that he wrote the paragraph symbol on some people's essay because they needed to break up their ideas more and he put it on the document, but then I'm like wait, are there comments on my document? I want to see those, but I don't know if that exists or not."
Menu structure	When participants talk about something related to how the menu is organized in Canvas.	Rachel (S3): "he way your main dashboard would look with the past due assignments and the late assignment and all of that, but just keeping on top of submitting those small assignments. I'm keeping track of the announcements, because those are helpful."
Streamlining navigation	When participants talk about making navigation more efficient in Canvas.	Dagney (I1): "And so Canvas allows me to have those materials at the ready, so all they have to do it open it. I would say the streamlining, streamlining is a major component and yeah."
Navigating by oneself	When participants talk about how they find things by themselves in Canvas.	Rachel (S1): "Yeah, nothing's explicitly said, like this is how you use ... I don't think I've ever had a Canvas tutorial. It's just something ... I think it's straightforward enough for people to just figure it out. No one's ever really told me this is how you do ... There's probably still features on here I have absolutely no idea how to use yet."
Locating by update	When participants talk about locating important information in instructor updates.	Nate (S1): "Well, I go to announcements because if she makes an announcement regarding an assignment, then that assignment is linked for one instance. And she's very consistent with this. She has this assignment here; I can click on that, and it will take me to the actual assignment itself."
Navigating differently than expected	When participants talk about navigating in ways that are perhaps different from how the instructor intended (or from the default presentation).	Andres (S1): "Also one thing, one reason that I go to files instead of home that I didn't mention that I just thought of, sometimes stuff that is in files doesn't show up in home. And I haven't had that problem with this class, but other classes sometimes like I don't know why

		but there will be an assignment and it's not in the home but it's in files.
Teacher-led navigation	When participants talk about how their instructors show or tell them how to navigate Canvas.	Gary (I1): "I don't think that Canvas is obvious to students merely because it is digital, so I do spend a little bit of time walking them through it and making sure I'm saying, "Bring this up in Canvas." And then I'll kind of go around and eyeball a few computers and make sure that this has actually happened and gently help students who are still trying to figure out like, "Where is this? I don't know how to find it."
Clicking links	When participants talk about clicking links to access important information.	Brianna (S3): "I would click the PDF because it tells you directly what you need to do and it has the rubric and everything, so that's what I would click. And it gives an overview of the assignment, so I feel like that's what I would do to see where I should start from."

Canvas as Repository: This theme refers to moments in which participants talk about how Canvas is used to store texts, assignments, and other information related to the course. For example, some instructor participants talk about how resources in Canvas serve as an extension of class discussion.

Code	Definition	Example
Creating permanence	When participants talk about the permanent nature of things in Canvas.	Dagney (I1): "And it's different, like there's some kind of almost permanence to this. So, I could address something that happened in class, I could address it in the next class. But there's something very I want to say official about it, because this is as soon as you go into Canvas you can see this."
Storing assignments	When participants talk about how assignments are stored in Canvas.	Jacob (S1): "You know, when stuff's due, put our syllabus on there. Also, it's really easy because the majority of classes we begin with a quick write, and he can easily just put it on there. We could write it in a little text box, and it just makes it really easy. We just submit it and then it's all on one website."
Storing shared student work	When participants talk about how shared work is kept in Canvas for others to learn from.	Sarah (S1): "I think it's interesting to see everybody's definitions of plagiarism. I usually don't like sharing my work, but I don't mind because I guess I'm... Oh yeah, the names are here. But I don't know, I guess you get to learn more, and

		then incorporate other people's definitions into your own."
Storing files	When participants talk about how files are stored in Canvas.	Nate (S3): "Which is that it's a tool and it's just a method of organization. It's a digital version of a planner. It keeps my files together related by subject, and that's really all I see it as. That's how I use it."
Extending class discussion	When participants talk about how Canvas extends class discussion (or class discussion about resources).	Gary (I1): "I think maybe what I'm thinking of is that it feels more like ... it feels like an obvious and direct extension of the classroom, from my perspective, because I'm using it to distribute the syllabus, because I'm using it to send students things that I want them ... like here's the things I want you to keep in mind as you're doing this reading."

Table 2: Personal Experiences with Canvas. This category refers to experiences, feelings, and preferences related to using Canvas. For example, student and instructor participants talk about what works best for them when using Canvas or a peripheral technology.

Educational Aspirations: This theme refers to moments in which student participants talk about their degree programs or which degree programs they are interested in pursuing. For example, some student participants talk about their orientations toward STEM or computer science fields.		
Code	Definition	Example
Education-oriented	When participants talk about educational goals or degree programs.	Iris (S1): "I like working with younger kids. I always was interested in that. And so, I thought psychology, which always also interested me with developmental areas, would be a good way to connect the two things that I'm interested in."
Computer-oriented	When participants talk about computer science goals or degree programs.	Andres (I1): "Well, I started studying computer science in high school and actually like I played Game Boys and I was a big video game nerd when I was a kid and that got me interested in how technology works."
Design-oriented	When participants talk about design goals or degree programs.	Nate (S1): "And learning the really in depth, the ins and outs of those very, very complex machines absolutely fascinates me as well as the design aspect of communicating through line and color and shape. You know, the intended purpose and the beauty to the object. So that combines very nicely in the automotive design career path. So

		that's the reason for my major choice."
STEM-oriented	When participants talk about STEM goals or degree programs.	Jacob (S1): "But I'm more a math minded kind of individual. I like numbers. I took a lot of computer science in high school, and I was in the more advanced math. So, I always liked that much more than I have liked humanities probably."

Feelings about Technology: This theme refers to moments in which participants talk about their comforts and anxieties related to technology. For example, some student participants talk about their confidence in using certain kinds of technology.

Code	Definition	Example
Previous experiences with Canvas	When participants talk about their experiences with Canvas prior to the study (or how they have been experiencing Canvas over time).	Andres (S2): "And I also think it's worth mentioning that I have used Canvas for a year already. So maybe my experiences would be different, compared to everyone else who might be using it for the first time."
Constant contact with technology	When participants talk about the frequency or range of technologies they are using.	Dagney (I1): "So I do use technology often in my life. I take notes on my phone. It's a thing that I have with me that there's sort of an infinite amount of space in it. So, I take notes from my phone. I occasionally send and receive emails from my phone. I always have a computer with me anywhere I go, even if I'm not directly using it."
Learning technology	When participants talk about how they learn to use technology.	Rachel (S1): "I used to have a Chromebook, and using a flash drive with stuff, in the Chromebook, you couldn't do that. But now I have a Mac, so I've learned I have to get the adapter, and then the flash drive, and then figuring out how to store the files and all that, and access and organize, which is always so annoying to do."
Anxiety with technology	When participants talk about the struggles or stress that technology can cause them.	Dagney (I3): "Sometimes I feel like it adds to my stress because even though I feel like it's streamlined, sometimes I feel like it's harder to do it through an interface than it might be to do if I was grading just like in a grade book. Like I'll just give you the grades. Yeah."
Writing through Canvas	When participants talk about the kinds of writing that they do through Canvas.	Gary (I1): "I don't mind them dropping a message on Canvas, but texting raises, for me, issues of timeliness, like how quickly I'm

		supposed to get back to you. People have different expectations of a timely response with a text message, … I don't feel like there are those same expectations around either email or even one-on-one communications through Canvas."
Writing with a computer	When participants talk about the kinds of writing they do with a computer.	Iris (S1): "Technology made things easier to find and easier to work with, such as typing an essay would be a lot easier than writing it out and things like that. And yeah, it gave a lot more sources."
Confidence with technology	When participants reflect on their comfort and acumen with technology.	Brianna (S1): "I mean I use it all the time, everyday, very comfortable. I feel a lot of people my age are always using it. I'm always on my computer all the time. I feel like I can pretty much do ... even if I'm not super familiar with the program, I feel I can figure it out pretty easily."

Feelings about Writing: This theme refers to moments in which participants talk about their comforts and anxieties related to writing. For example, some student participants talk about being more willing to write if the topic is something they are interested in.		
Code	Definition	Example
Prefer writing over other things	When participants talk about how they prefer writing over other activities.	Iris (S1): "And then the other options I had, I did prefer writing over just reading the course or learning grammar. I prefer to write and improve my writing, so that's why I chose this specific course."
Anxiety about writing	When participants talk about the struggles or stress they experience when they write.	Peter (S2): "In general, the amount of, I guess, stress or anxiety... It wasn't bad, but you feel these types of things in a more important assignment that's coming up. That was definitely higher, but that comes with any important assignments."
Writing for enjoyment	When participants talk about the kinds of writing they do (or would do) for enjoyment.	Andres (S1): "But if I knew how to write better, I think I would write like fiction as I do have some friends that write fiction and I enjoy reading it and I think I would enjoy writing it, but I just never got into it because I'm kind of intimidated by how much there is to do."
Do not enjoy writing	When participants talk about not enjoying writing.	Brianna (S1): "Not really my thing. I don't like the process of it. But at the end result, it's satisfying to be like, "Oh, this is my paper." But it just takes me so long to write a paper."

Writing improvement	When participants talk about the kinds of improvement they notice in their writing.	Andres (S1): "They're going well. I feel like, I'm learning quite a bit. And I didn't expect, really to be honest, to grow that much as a writer, when I first started the class, not based on my teacher, but just based on how I felt comfortable about my writing style."
Writing as necessity	When participants talk about writing as an obligatory function, or as a means to an end.	Iris (S1): "When they confine you to a certain prompt it's hard to stay within that, especially with all the ideas that might come up. It's hard to stay on track with work, yeah."
Self-interested writing	When participants talk about the kinds of writing that they are genuinely interested in producing.	Nate (S1): "I do enjoy writing if it's about something I'm passionate about. For instance, for this course, we're currently writing an essay that has a component to it, which I can connect to my passion for automobiles. So that portion of it is just, it just flows super easily."

User Preference: This theme refers to moments in which participants express a preference for tools, features, and uses both in and outside of Canvas. For example, some instructor participants talk about how they prefer to use discussion boards in Canvas.

Code	Definition	Example
Aesthetics preference	When participants talk about aesthetic properties they prefer in Canvas or in other online spaces.	Dagney (I1): "And the presentation is just a different ... So, there's something about Canvas that sort of looks sterile. It looks like it's got a very institutional vibe, whereas WordPress can be more aesthetically customized, and so that is one reason why I considered not using Canvas."
Student use preference	When participants talk about the ways in which they prefer students to use Canvas.	Dagney (I1): "Something else that might be relevant to you, I limit the file types. They can only upload Word docs."
Program or app preference	When participants talk about the programs or apps they prefer to use.	Jacob (S2): "I actually prefer to use the quizzes on Canvas, because now when we have to write on the Google Docs, he posts the question on the board. And then, I have to log into my […] email and or not my […] account to get to my Google Docs and then I have to sign in and then I have to go to my Google Docs, scroll all the way to the bottom."
Technology preference	When participants talk about the kinds of technology they prefer to use.	Peter (S1): "I don't usually use my smartphone, actually. I like using my computer mainly for writing, unless it's required of me to write on paper. I generally tend to use a

		computer just because I type faster than I physically write. Typing on my phone is faster than physically writing, but I just don't. It's too small."
Writing preference	When participants talk about the kinds of writing they prefer to do in Canvas or in other online spaces.	Brianna (S1): "I didn't type it in the box because I think it's easier to see. But I have done that on some of the quick ... in the past, I have typed in the boxes and stuff. I think it's pretty easy like for the quizzes. Because I remember we'd have little essays in our quizzes."
Navigation preference	When participants talk about how they prefer to navigate and find things in Canvas.	Sarah (S3): "Maybe it's just a personal thing, but I kind of ignore the right side. I don't really look at the to do, even though it said that it's due that day. I usually look more here because there's more going on here. This is where you find everything."
Feature preference	When participants talk about the features they prefer to use on Canvas.	Dagney (I1): "Collaborations is one thing that I have no interest in. I put students into groups, but I never do it via Canvas. Conferences, I don't use that at all. I don't even know what that is. And outcomes, I could make a guess of what that is, but I still kind of don't know what that is."
Information delivery preference	When participants talk about the way they prefer to have information conveyed to them over Canvas.	Brianna (S2): "I don't necessarily think there's anything I would change about the Canvas. I think maybe if you just included an example. Maybe not even an example. I don't know. But I think that they put enough text here and then explained the assignment well. I don't know."

Consistency: This theme refers to moments in which participants talk about the consistency and alignment of information and resources in Canvas. For example, some students talk about misalignments in due dates between the syllabi and their course sites.

Code	Definition	Example
Shifting resources	When participants talk about shifting (e.g., reducing, increasing, or changing) resources on Canvas.	Paul (I3): "So, I did all that but what that required then is me shifting out several things on Canvas, adding several new things in. I'm doing prelims right now, so I try to limit the amount of time that I spend on teaching on days that I don't teach."
Fatigue	When participants talk about struggling to keep things consistent	Paul (I2): "Canvas has been going well, but there always comes a point in the semester where, even

	on Canvas because of time and other stressors.	though I tell myself I'm not going to adjust my syllabus, you have to adjust your syllabus for whatever reason. And then you don't end up eliminating certain things from Canvas that you should eliminate, accidentally."
No change	When participants note that nothing significant has changed on Canvas.	Nate (S2): "I mean, it's not a problem, by any means. She uses the exact same wording each time, which I suppose is useful in the sense that is communicated to us that these are the same thing, these are not different things that we have to click."
Verifying instructions	When participants talk about the degree to which instructions in Canvas match what the instructor wants.	Brianna (S2): "I would say it was easy, but I feel those instructions are very clear and they're simple. But I feel sometimes in class, he explains it and then we're all, "Wait. What? We're supposed to do it like that?" I feel it's not necessarily the instructions itself are confusing, it's I don't know if that's always what he wants."
Misalignment	When participants talk about how instructions in the schedule or in other places on Canvas are not aligned.	Peter (S2): "So, that actually was kind of anxiety inducing, because you didn't really know whether this assignment was still due or not. I just assumed it wasn't, because it wasn't on the new syllabus our GSI printed. But in terms of Canvas use, that was, in particular, something that was really... I don't know, I guess surprising."

Effectiveness: Instructor: This theme refers to moments in which instructor participants talk about the things that are particularly effective for them in using Canvas. For example, instructor participants talk about aspects of Canvas that they can take advantage of.		
Code	Definition	Example
Copying	When participants talk about the effectiveness of copying language or course content from one space to another.	Dagney (I3): "Yeah, I did notice, this may or may not be relevant, but I noticed that my announcements this semester, we talked about it a little bit before. I do the exact same kind of setup. I did start to parrot-back a little bit because I started to think like maybe I was writing too much."
Setting expectations	When participants talk about the effectiveness of setting expectations through Canvas.	Gary (I3): "So, I think it does require some expectation setting up front. I also remained convinced that Canvas is a great one-stop shop, but you've got to talk it

		through with the students as a one-stop shop."
Connecting resources	When participants talk about the effectiveness of connecting resources through Canvas.	Gary (I3): "So, there are multiple ways for me to ... I can set up multiple paths in Canvass to things that I think the students either need to or ought to be looking at. I already knew that about Canvas, and I think probably I've learned a few new tricks this semester about it, but that has merely reinforced my opinion that it's a pretty good platform."
Taking advantage	When participants talk about how easy it is to take advantage of Canvas's features or design.	Paul (I3): "Even if I don't use, the discussion section I used sparingly this semester, it's always available to me effectively. I like having the non-static, or the non-syncopated form of the course where I only see them Monday's and Wednesday's, I can always communicate how we're doing and stuff like that."
Making things easier	When participants talk about the degree to which Canvas can make things easier for them.	Paul (I1): "It eliminates the reliance on me quite often, effectively. Having to ask me for things or if they need to reprint something, a syllabus or something like that. I just avoid a lot of silly questions or just details about the course because it's all available for them."
Frustration with Canvas	When participants talk about things that are not effective in Canvas (or interrupt what was otherwise effective).	Gary (I2): "So there was one technical hitch, which I did address directly with ITS where, I'll see if I can duplicate this on an assignment real quick. I'm just going to take the first person's; it doesn't really matter what they wrote. I can highlight something here, if I try and do a comment it crashes every time."

Effectiveness: Student: This theme refers to moments in which student participants talk about the things that are particularly effective for them in using Canvas. For example, student participants talk about aspects of Canvas that make things easier.

Code	Definition	Example
Connecting resources	When participants talk about the effectiveness of connecting resources through Canvas.	Sarah (S2): "Oh, and then again helpful because she provided a link to a video that we had watched in class in case somebody wanted to go back and watch it."
Getting used to Canvas	When participants talk about the degree to which one can become accustomed to using Canvas.	Sarah (S1): "I already was used to using Canvas for math class in the summer. So, I had to write it down myself, the assignments that I have to do instead of it being just posted

		on Canvas. And then, my other class it's also used but not as frequently as it is in my English class. Yeah."
Frustration with Canvas	When participants talk about things that are not effective in Canvas (or interrupt what was otherwise effective).	Andres (S1): "Something that's kind of strange is that like when I go to the Canvas website, if I just Google Canvas like it'll pull up that Canvas page and I'll try to log in and I can't. So, what I actually have to do is I have to type [the web address] or whatever."
Neutral effectiveness	When participants talk about Canvas having no significant impact on their writing or learning.	Nate (S2): "These particular instructions that are on screen at this exact minute, I don't know, it's kind of hard to answer because this particular assignment is something that I think how I've tackled it and how I've looked at it has slightly changed each time, also the context of how much time do I have to dedicate to this is a factor as well."
Lacking something	When participants talk about a lack of something in Canvas.	Peter (S2): "I've seen different classes just link the assignment sheet here. I don't know if... Maybe it's hard to implement there with the formatting or whatever, but just a linking the assignment sheet would have been nice."
Setting expectations	When participants talk about the effectiveness of setting expectations through Canvas.	Sarah (S1): "I actually found it helpful, because I wasn't one of the first ones to post it. I think I was like the third, but either way I got to see other people's ideas, and what should be expected of what I posted."
Making things easier	When participants talk about the degree to which Canvas can make things easier for them.	Iris (S1): "Yeah, I think because I'm not normally too organized with work before... I was, but this makes it a whole lot easier to find everything, especially since I'm forgetful too. If I go on here, it'll update me. It's an easy way to connect with my instructor, which is normally harder to do."

Table 3: Teaching & Learning Experiences with Canvas. This category refers to the pedagogies and learning that are either facilitated through Canvas or happen in spite of Canvas. For example, instructor participants talk about the kinds of features they employ in Canvas and what they expect their students to get out of them.

Collaboration: This theme refers to moments in which participants talk about student work that takes place collaboratively in Canvas. For example, some student and instructor participants talk about activities in which students are able to learn from their peers.

Code	Definition	Example
Brainstorming together	When participants talk about activities and spaces in Canvas that allow collective brainstorming.	Dagney (I3): "So since it's just sort of a brainstorming kind of session, I see it as a potentially collective brainstorming session even though it's an individual assignment for them to post, but if they want to sort of draw on other ideas from the class that that could inform the decisions, they make of what they want their final project to look like."
Negotiating resources in Canvas	When participants talk about deciding as a group on what kinds of resources to put into Canvas.	Dagney (I2): "So for example, we negotiated the rubric recently and a lot of students didn't want voice to be on there because they thought voice was not an element of a rhetorical analysis and so I was like have I not convinced you that voice is in everything like rhetorical appeals."
Peer review	When participants talk about the peer review process in their courses.	Sarah (S2): "So we write a first draft and then we submit it, and then we're placed in a group of three people. We have to write peer review letters to each member after reading their essay."
Working together	When participants talk about working together on the same activities in Canvas.	Iris (S1): "So we haven't been using it to too often, but we have an upcoming assignment due on here as well. But he'll post a discussion page for us and then the students will be able to comment on it, post our work on it and then comment on each other's work."
Learning from peers	When participants talk about posting things in Canvas that others can see and learn from.	Iris (S1): "So we have a practice essay and then we're supposed to enter it on here, like do a reply. And then as we update it throughout the days, the other students would comment on each other's work, be able to compare how we did it and see different analysis of the same book."

Learning Canvas: This theme refers to moments in which participants talk about how they learned to use Canvas. For example, some student and instructor participants talk about the ways they had to teach themselves about Canvas.

Code	Definition	Example
Professional development	When participants talk about learning how to use Canvas in professional development contexts.	Dagney (I1): "We talked some in the EDWP training, and so it's not like I was completely thrown off guard, like I don't even know how to log in here, but I do feel like I wasn't particularly trained."

Learning from instructors	When participants talk about learning how to use Canvas from their writing instructors.	Iris (S2): "And especially in asking the part two, with what he was telling us how you upload an example, that was helpful. And then he also gave us a general structure for how we should word it and the exact way he wants it."
Self-taught	When participants talk about learning how to use Canvas on their own.	Dagney (I1): "As a teacher, how I was trained? That's an interesting question, because my first impulse was I wasn't trained. I was self-taught."
Learning Canvas over time	When participants talk about learning how to use Canvas over a period of time.	Rachel (S2): "Actually I have noticed myself interacting with the website more and also using the app. Remember last time I said I use the computer more than the app. But I think the app is good for notifications and stuff so you can quickly look at those."
Learning from mentor	When participants talk about learning how to use Canvas from a mentor.	Gary (I3): "In previous semesters, it's been more directly, "Write a piece of this essay for me." Closer to the work that you and I did in [my professor's] class, where a lot of those formative assessments you really could take them almost intact and stuff them into your summative assessment."
Learning Canvas in class	When participants talk about learning how to use Canvas during a class lesson.	Gary (I1): "And when we go over instructions, I say, "All right, everybody get into Canvas now. Open it up." On day one, one of the first things I did in class was, "Everybody get onto Canvas because I need to know right now if there's anybody in the room who doesn't know what that means yet."

Workload: This theme refers to moments in which participants talk about the amount of time or effort it takes to complete an assignment or build something in Canvas. For example, some student and instructor participants talk about how many hours it takes to complete an assignment.		
Code	Definition	Example
Description of effort: instructor	When instructor participants describe the kinds of effort that go into writing or building something.	Paul (I3): "I mean, in all honesty it's the same assignment. Instead of doing one source they're now doing four sources. Instead of doing eight to ten pages, they're doing ten to twelve pages. At this point in the semester, it's now the write a paper territory, right?"
Number of hours: instructor	When instructor participants explicitly state the number of hours (or other markers or time) it takes to write or build something.	Dagney (I2): "So for this particular assignment, I would guess that students put approximately two hours per feedback letter. So maybe

		four hours total. I'm going to say three to four hours total."
Instructor workload for assignment	When instructor participants talk specifically about the kinds of work it takes to create an assignment.	Gary (I3): "Originally, though, the research-based argument was a pretty radical shift from what I had been doing in class. I'd say that it probably took me ... I couldn't put it. I know that it took me about a week to figure out all the pieces that I was interested in."
Number of hours: student	When student participants explicitly state the number of hours (or other markers or time) it takes to complete an assignment.	Andres (S3): "I spent about three hours or yeah, about three hours on it yesterday on the draft and I spent quite a bit of time just thinking about the topic outside of class, but I guess that's not necessarily for the assignment itself."
Description of effort: student	When student participants describe the kinds of effort that go into completing an assignment.	Rachel (S2): "I mean, I put a lot of effort into all of the assignments, but especially I'm really attentive to these ones. More particular about things like content and grammar because they're more heavily weighted."

Feedback: This theme refers to moments in which participants talk about feedback and grading in Canvas. For example, some instructor participants talk about the kinds of feedback they give to students using Speedgrader.		
Code	Definition	Example
Feedback from external programs	When participants talk about the kinds of feedback they access outside of Canvas.	Andres (S1): "Grammarly they just added a feature it's like tone analysis where it analyzes your tone, and it gives you feedback. So, what I've been using it for is just like looking at grammar errors I think parsing it and usually it's good."
Analytics	When participants talk about analytics in terms of online spaces visited and time spent.	Nate (S2): "Personally, in the past month, I've been trying to take note of my activities more and how I'm spending my time, and I've been doing that with installing software on my computer and stuff to see how long I spend on websites."
Verbal feedback	When participants talk about feedback given in a face-to-face context.	Gary (I3): "The two students who showed up at the most recent conference with questions from module two, one of them was clearly there to understand why they got a lower A than they were expecting to get."
Handwritten feedback	When participants talk about feedback given in handwritten form.	Dagney (I3): "I tend to give more handwritten feedback. I don't necessarily have anything against Canvas feedback, but I like

		handwritten feedback for the personal touch."
Feedback challenges	When participants talk about the challenges they have with giving or receiving feedback.	Dagney (I3): "So one thing that's bothered me through the semester is sometimes I will start grading and giving some feedback but then once I get halfway or three quarters of the way through, I'm exhausted."
Incorporating feedback	When participants talk about the ways they consider or integrate feedback for current or future assignments.	Peter (S3): "Generally speaking, I try to put that into my paper or like my writing. Yeah, like when you're taking feedback, you have to dissect what it means first and then try and apply it little by little to improve whatever you're doing."
Feedback through Canvas	When participants talk about the kinds of feedback given through Canvas.	Sarah (S3): "I don't know if it's just on the phone or here too, but there's usually, when she returns her essay, she returns the essay in on Canvas. I could see it. And then with the comments were they current comments on the essay."

Pedagogy: This theme refers to moments in which instructor participants talk about how they enact their pedagogies and learning goals through Canvas. For example, some instructor participants talk about how the role that Canvas plays in their classrooms.		
Code	Definition	Example
Canvas philosophy	When participants talk about what they think Canvas should be used for.	Gary (I1): "I want students to see the big picture. I don't remember what other sorts of choices they've got for landing page, but one of the choices was syllabus, which has the calendar, but I try to use due dates inside the things that I put in the modules as a way of sort of flagging the students' attention about upcoming dates."
Teaching experience	When participants reflect on teaching experiences prior to this study.	Paul (I1): "I ran a private tutoring business when I got out of college, but it was in math because my other degree was in math, so I didn't really do much English training, but I got teaching experience."
Decision to use Canvas tool	When participants talk about their decisions for using (or not) specific tools or features in Canvas.	Dagney (I1): "So I'm not sure why I hid quizzes. I think I might have hid quizzes because it has this sort of connotation to it, like pop quiz or something like that, and that's not the kind of learning environment I want to foster, that we're going to have a quiz, and that there's going to be right answers and wrong answers, right?"

Assignment design in Canvas	When participants talk about the ways in which they design assignments in Canvas.	Gary (I2): "You have your addressee, and whatever the audience is for the venue of publication. So, we'll use that, but for most of them it's been really interesting, and I think in a number of cases, fun to really think through the audience."
Referencing Canvas in class	When participants talk about how Canvas is talked about in classroom discussions.	Jacob (S1): "Well again, like on the first time we did it he kind of walked us through it a little bit just saying we have our quick write number one and then in Canvas it said quick write number one."
Teaching philosophy	When participants talk about their approaches and philosophies for teaching.	Dagney (I1): "Wow. The million-dollar question. Writing? So, I try to keep writing sort of as the center of a mind map, if you will. "

Organization: This theme refers to moments in which participants talk about how course content is organized and structured in their Canvas course sites. For example, some instructor participants talk about dividing their content into units using the Modules feature.

Code	Definition	Example
Calendar integration	When the participant talks about how instructor updates coordinate with their calendars.	Andres (S1): "[E]very time he sends an announcement I get an email and then I for sure see it and it pops up on my calendar because I have my Google Calendar integrated with this like Canvas calendar thing so it pops up on my calendar and I always see it. It's really convenient."
Collaborations	When participants talk about the use of the Collaborations feature in Canvas.	Gary (I2): "So checking out the [C]ollaborations is not as easy, but the tradeoff was that vastly increased, I hope, vastly increased sense of student ownership of the Quick Writes."
Extending class discussion	When participants talk about how things talked about the in classroom also have a presence on Canvas.	Dagney (I1): "So I think it's pretty cool that we can have things like a response to what happens in class, we can have that kind of response on Canvas."
Quizzes	When participants talk about the Quizzes function on Canvas.	Jacob (S1): In my English class I suppose we've had ... Yeah, we've had ... He puts these quick writes in the quizzes so that we have let's say a certain amount of time to write it and then he wants us to submit it."
Resource overload	When participants talk about high volumes of resources in Canvas.	Paul (I2): "Well I guess what happens is that you see at the beginning of the semester I actually have so many announcements over and over again. It's like a barrage

		and now I've slowed down with my announcements."
Resource navigation	When participants talk about accessing resources on Canvas, given an instructor's design.	Brianna (S1): "I'll probably go to announcements because he does give us announcements and the grades obviously. But I don't think I use ... I think on some of my other classes, they put the syllabus on the syllabus tab."
Files	When participants talk about the Files feature in Canvas.	Sarah (S1): "Probably the files, because that's where most texts are in the majority of the classes, like those who use Canvas. That's where they post the texts."
Discussion board	When participants talk about the Discussions feature in Canvas.	Dagney (I1): "So I especially think that the discussions feature does have a more direct impact on developing their skills."
Consistent organization	When participants talk about the consistency of instructors' designs (or of the default design) in Canvas.	Rachel (S3): "The whole assignments tab gets kind of confusing. Especially when you have a lot of assignments, in this English class there's so many, it gets kind of confusing when dates are changed and assignments aren't fully detailed."
Menu structure	When participants talk about the organization of the menu(s) in Canvas.	Brianna (S3): "I feel like making it more organized, like a lot of these tabs, these things on the side, I never use them except for the home, which I think is nice because most of my teachers put everything on the home and that's all I really need to look at and then obviously grades."
Modules	When participants talk about the Modules feature in Canvas.	Andres (S1): "So there's introduction and then there's like module one, it's really similar actually to the files. But with this, it's collapsed on the homepage."
Central hub	When participants talk about the centralizing functions of Canvas.	Sarah (S2): "I think she ... It just has everything. I don't think I've ever been like ... I've never had doubts like, "Oh, what if?" You know?"
Linking resources	When participants talk about how resources are linked to one another in Canvas.	Gary (I2): "This, again, the link is the message. We're doing conferences. I use a SignUpGenius to manage all the time slots for all the conferences."
Announcements	When participants talk about the Announcements feature in Canvas.	Dagney (I3): "And then the updated draft, I don't expect them. So, I guess there's quite a lot that I don't expect them to check out. I often put details in the announcements.

		So, like by the way, if you're thinking about this, here's another link."
Directions for assignments	When participants talk about the ways in which instructors compose directions for assignments in Canvas.	Brianna (S2): "Well, I think they're very similar to the draft. They're the same exact instructions so it's the same format. But I also think it was helpful that he included the PDF because it outlined more of what we were supposed to do."

Planning: This theme refers to moments in which participants talk about how they use Canvas as part of their planning for getting through their courses. For example, some student participants talk about how their instructors' announcements help them plan ahead for classes and assignments.

Code	Definition	Example
Using Canvas with outside tools	When participants talk about using Canvas in tandem with other tools and spaces.	Nate (S2): "I'll put Microsoft Word into full-screen mode, and then I'll swipe back and forth between the two of them."
Modeling writing practices	When participants talk about models for writing and research practices.	Paul (I3): "I give them all those paradigms and then we go on the library website, and we say like, "Here's what you would search," and stuff. And then sometimes they come to me and they ask like that and I say, "Well, perhaps you should search these things," and stuff like that."
Skipping content	When participants talk about skipping over things when using Canvas.	Andres (S2): "I think I remember like clicking on it, and like, "Oh, okay." And then I put it in another tab, and then I just never got to it."
Socializing assignments	When participants talk about making assignments more social, typically via Canvas.	Dagney (I3): "And another reason why I like it to be in a discussion board and why I generally like to use discussions is so that students can see the scope of other people's answers."
Creating checklists	When participants talk about checklists as a means of ensuring all the necessary components of an assignment or task are completed.	Dagney (I2): "But again, I think I'm moving towards more of a checklist kind of look. So, print done, annotate, done, compose, done, upload, done, bring, done. So, I think I am really conceptualizing these bullet points in terms of check boxes."
Reviewing missed content	When participants talk about using features or resources in Canvas to review something they missed.	Jacob (S1): "It gives me notifications sometimes like a new announcement has been posted for this class and that actually is helpful because sometimes, very infrequently, that I'll forget an assignment or something or I'll forget something's due, and it'll

		send me a notification and I really ... I like that, I guess."
Being efficient	When participants talk about using Canvas as a means of improving efficiency.	Paul (I1): "Yeah, If I didn't have Canvas, I would be loathed to assign so many little assignments as I do because that's a lot of paper to be bringing in. I wouldn't be able to give them feedback as quickly."
Building content in Canvas	When participants talk about building content in Canvas.	Gary (I1): "Usually what I do is I will put ... because the assignment sheet itself ... like Monday is the first day of module one. They will receive on Monday through Canvas a PDF that has the assignment description and the grading rubric."
Planning dates	When participants talk about using Canvas to know when things need to be completed.	Iris (S1): "Yeah, I've been using it more because he uploads different dates and timelines and makes it available so we could see what's coming up, so I've been more active on that one."
Reviewing content	When participants talk about using Canvas to review prior content.	Andres (S1): "But with this I can just say, "Oh, what was that thing that we read around September? Oh yeah, it was this one." And then I click it and it's there."
Planning for assignments	When participants talk about using Canvas to plan different stages of their assignments.	Peter (I3): "Yeah. So, for example, here, he reminded me to use MLA. And I actually really, really like the fact that you can see the comment on the side, like this little icon."

Bibliography

Aillerie, K. & McNicol, S. (2018). Are social networking sites information sources? Informational purposes of high-school students in using SNSs. *Journal of Librarianship and Information Science*, *50*(1), 103-114.

Arola, K. (2010). The design of Web 2.0: The rise of the template, the fall of design. *Computers and Composition*, *27*, 4-14.

Barber, J. P., King, P. M., & Baxter Magolda, M. B. (2013). Long strides on the journey toward self-authorship: Substantial developmental shifts in college students' meaning making. *Journal of Higher Education, 84*(6), 866-895.

Bourdieu, P. (1986). The forms of social capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education*. Greenwood.

boyd, d. (2010). Social network sites as networked publics: Affordances, dynamics, and implications. In Z. Papacharissi (Ed.), *Networked self: Identity, community, and culture on social network sites* (pp. 39-58). New York: Routledge.

Canvas help and support. *LSA Technology Services.* Retrieved March 24, 2022 from https://lsa.umich.edu/technology-services/services/canvas-help-support.html.

Chou, C., Peng, H., & Chang, C. The technical framework of interactive functions for course-management systems: Students' perceptions, uses, and evaluations. *Computers & Education, 55*, 1004-1017.

Chickering, A. W. & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, 2-6.

207

Chun, W. H. K. (2016). *Updating to remain the same*. Cambridge, MA: MIT Press.

Coates, H. (2006). *Student engagement in campus-based and online education: University connections*. London: Routledge.

Coble, R. (2016). Learning and course management systems (LMS/CMS). *Vanderbilt University Center for Teaching*. Retrieved March 24, 2022 from https://cft.vanderbilt.edu/learning-and-course-management-systems/.

Crow, K. L. (2008). The legal environment of accessible postsecondary online learning. *The Quarterly Review of Distance Education 9*(2), 169-179.

de Lima, D. P. R., Gerosa, M.A., Conte, T. U., & de M. Netto, J. F. (2019). What to expect, and how to improve online discussion forums: the instructors' perspective. *Journal of Internet Services and Applications*, *10*(22).

DeVoss, D. (2010). Digital writing matters. In D. DeVoss, E. Eidman-Aadahl, & T. Hicks (Eds.), *Because digital writing matters* (pp. 9-13). San Francisco: Jossey-Bass.

DeVoss, D., Cushman, E., & Grabill, J. (2005). Infrastructure and composing: The when of new-media writing. *College Composition and Communication*, *57*(1), 14-44.

De Smet, C., Bourgonjon, J, De Wever, B., & Schellens, T. (2012). Researching instructional use and the technology acceptation of learning management systems by secondary school teachers. *Computers and Education, 58*(2), 688-696.

Dixson, M. D. (2015). Measuring student engagement in the online course: The online student engagement scale (OSE). *Online Learning, 19*(4), 143-157.

Dolmage, J. (2005). Disability studies pedagogy, usability and universal design. *Disability Studies Quarterly*, *25*(4).

Dusenberry, L., Hutter, L., & Robinson, J. (2015). Filter. Remix. Make.: Cultivating adaptability

through multimodality. *Journal of Technical Writing and Communication*, *45*(3), 299-322.

Edyburn, D. L. (2005). Universal design for learning. *Special Education Technology Practice*, *7*(5), 16-22.

Etherington, C. (2018) Why colleges and universities are adopting CANVAS. *Elearning Inside*. Retrieved March 24, 2022 from https://news.elearninginside.com/why-colleges-and-universities-are-adopting-canvas/.

Eyman, D. (2015). *Digital rhetoric: Theory, method, practice*. Ann Arbor, MI: University of Michigan Press.

Eyman, D. & Ball, C. (2014). Composing for digital publication: Rhetoric, design, code. *Composition Studies*, *42*(1), 114-117.

Eysenbach, G. & Till, J. E. (2001). Ethical issues in qualitative research on internet communities. *BMJ*, *323*, 1103-1105.

Frantzen, D. (2014). Is technology a one-size-fits-all solution to improving student performance? A comparison of online, hybrid and face-to-face courses. *Journal of Public Affairs Education*, *20*(4), 565-578.

Galanek, J. D., Gierdowski, D. C., & Brooks, C. D. (2018). *ECAR Study of Undergraduate Students and Information Technology*. Louisville, CO: ECAR.

Gallager, J. L. (2020). Template rhetoric. In *Update culture and the afterlife of digital writing* (pp. 33-48). Louisville, CO: University Press of Colorado.

Garrison, D. R., Anderson, T., and Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet and Higher Education*, 2(2-3), 87-105.

Garrison, D. R., and Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *Internet and Higher Education*, *10*, 157-172.

Gee, J. P. (2003). What video Games have to teach us about learning and literacy. *Technology Pedagogy and Education*, *1*(1), 20.

Green, K. R., & Chewning, H. L. (2020). The fault in our systems: LMS as a vehicle for critical pedagogy. *TechTrends*, *64*, 423–431.

Gries, L. E. (2013). Iconographic tracking: A digital research method for visual rhetoric and circulation studies. *Computers and Composition*, *30*(4), 332-348.

Guadardo, M. & Shi, L. (2007). ESL students' experiences of online peer feedback. *Computers and Composition, 24*(4), 443-461.

Han, I., & Shin, W. S. (2016). The use of a mobile learning management system and academic achievement of online students. *Computers & Education, 102*, 79-89.

Hesse-Biber, S. N. (2017). *The practice of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

Hewett, B. (2017). Editorial reading, writing, and digital composition: Reintegrating constituent literacies in online settings. *Communication Design Quarterly, 4*(4), 20-35.

Hill, J. R. & Hannafin, M. J. (2001). Teaching and learning in digital environments: The resurgence of resource-based learning. *Educational Technology Research and Development*, *49*(3), 37-52.

Hubert, D., Pickavance, J. & Hyberger, A. (2015). Reflective e-portfolios: One HIP to rule them all? *Peer Review, 17*(4).

Hussain, M., Zhu, W., Zhang, W., & Abidi, S. M. R. (2018). Student engagement predictions in

an e-learning system and their impact on student course assessment scores. *Computational Intelligence and Neuroscience, 2018*, 1-18.

Jones, M. (2022). A timeline of rhetoric's ecological turn(s). *The Big Rhetorical Podcast* [Facebook page]. Retrieved Aug. 12, 2022 from https://www.facebook.com/rhetsociety /photos/a.2358953320999904/3650531698508720/

Jung, Y., & Lee, J. (2018). Learning engagement and persistence in massive open online courses (MOOCS). *Computers & Education, 122,* 9-22.

Kain, D. & Wardle, E. (2005). Building context: Using activity theory to teach about genre in multi-major professional communication courses. *Technical Communication Quarterly*, *14*(2), 113-139.

Keeling, R. P., Underhile, R., & Wall, A. F. (2007). Horizontal and vertical structures: The dynamics of organization in higher education. *Liberal Education, 93*(4), 22-31.

King, S. B. (2014). Graduate student perceptions of the use of online course tools to support engagement. *International Journal for the Scholarship of Teaching Learning, 8*(1), 1-18.

Kinzie, J. & Kuh, G. (2004). Going deep: Learning from campuses that share responsibility for student success. *About Campus*, 2-8.

Kress, G. (2010). Multimodality: A social semiotic approach to contemporary communication. *Journal of Pragmatics*, *43*(14), 3624-3626.

Kuh, G. (2003). What we're learning about student engagement from NSSE. *Change*, 24-32.

Kuh, G. (2007). What student engagement data tell us about college readiness. *Peer Review*, 4-8.

Lewis, J. (2016). Content management systems, Bittorrent trackers, and large-scale rhetorical genres: Analyzing collective activity in participatory digital spaces. *Journal of Technical*

Writing and Communication, 46(1), 4-26.

Li, Y., Wang, Q., & Campbell, J. (2015). Investigating gender and racial/ethnic invariance in use of a course management system in higher education. *Education Sciences*, *5*, 179-198.

McKinley, J. (2015). Critical argument and writer identity: Social constructivism as a theoretical framework for EFL academic writing. *Critical Inquiry in Language Studies, 12*(3), 184-207.

Merideth, M., & Mussell, J. (2014). Amazed, appreciative, or ambivalent? Student and faculty perceptions of librarians embedded in online courses. *Internet Reference Services Quarterly, 19*(2), 89-112.

Merriam, S.B. (2009). *Qualitative research: A guide to design and implementation.* San Francisco, CA: John Wiley & Sons, Inc.

Naumann, J. & Goldhammer, F. (2017). Time-on-task effects in digital reading are non-linear and moderated by persons' skills and tasks' demands. *Learning and Individual Differences*, *53*, 1-16.

Naveh, G., Tubin, D., & Pliskin, N. (2015). Student LMS use and satisfaction in academic institutions: The organizational perspective. *Internet and Higher Education, 13*, 127-133.

Neal, M. (2011). *Writing assessment and the revolution in digital texts and technologies.* New York: Teachers College.

Neier, S. & Zayer, L. T. (2015). Students' perceptions and experiences of social media in higher education. *Journal of Marketing Education*, *37*(3), 133-143.

NSSE Engagement Indicators. (2019). *National Survey of Student Engagement.* Retrieved January 15, 2019 from http://nsse.indiana.edu/html/engagement_indicators.cfm

Our company story. *Instructure.* Retrieved March 24, 2022 from https://www.instructure.com

/about/our-story.

Palincsar, A. S. (1998). Social constructivist perspectives on teaching and learning. *Annual Review of Psychology*, *49*, 345-375.

Phan, T., McNeil, S. G., & Robin, B. R. (2015). Students' patterns of engagement and course performance in a Massive Open Online Course. *Computers & Education, 95*, 36-44.

Ring, J. K., Kellermanns, F. W., Barnett, T., Pearson, A. W., & Pearson, R. A. (2012). The use of a web-based course management system: Causes and performance effects. *Journal of Management Education, 37*(6), 854-882.

Rodrigo, S., Parker, C., & Mitchum, C. (2019). *Pre-designed online courses: The good, the bad, and the ugly* [Conference presentation]. Computers & Writing, East Lansing, MI, United States.

Rubin, B., Fernandes, R., Avgerinou, M. D., Moore, J. (2010). The effect of learning management systems on student and faculty outcomes. *Internet and Higher Education, 13*, 82-83.

Russell, D. (1997). Rethinking genre in school and society: An activity theory analysis. *Written Communication, 14*(4), 504-554.

Rust, J. (2019). Toward hybridity: The interplay of technology, pedagogy, and content across disciplines at a small liberal arts college. *Journal of the Scholarship of Teaching and Learning, 19*(2), 102-129.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Sage.

Salisbury, L. E. (2018). Just a tool: Instructors' attitudes and use of course management systems for online writing instruction. *Computers and Composition, 48*, 1-17.

Sandberg, K. E. (2011). College student academic online reading: A review of the current

literature. *Journal of College Reading and Learning*, *42*(1), 89-98.

Sandoval-Reyes, J., Acosta-Prado, J. C., & Sanchís-Pedregosa, C. (2019). Relationship amongst technology use, work overload, and psychological detachment from work. *International Journal of Environmental Research and Public Health*, *16*(23), 4602-4613.

Smith Jaggars, S. & Xu, D. (2016). How do online course design features influence student performance? *Computers & Education, 95*, 270-284.

So, W. M. W. (2012). Creating a framework of a research-based e-learning environment for science learning in primary classrooms. *Technology, Pedagogy and Education*, *21*(3), 317-335.

Soumplis, A., Koulocheri, E., Kostaras, M., Karousos, N. & Xenos, M. (2011). Learning management systems and Learning 2.0. *International Journal of Web-Based Learning and Teaching Technologies, 6*(4), 1-18.

Spinuzzi, C. (1996). Pseudotransactionality, activity theory, and professional writing instruction. *Technical Communication Quarterly*, *5*(3), 295-308.

Takayoshi, P. & Selfe, C. L. (2007). Thinking about multimodality. In C. L. Selfe (Ed.), *Multimodal composition: Resources for teachers* (pp. 1-12). Creskill, NJ: Hampton Press.

Thompson, P. (2013). The digital natives as learners: Technology use patterns and approaches to learning. *Computers & Education*, *65*, 12-33.

van Dijck, J. (2013). *The Culture of Connectivity: A Critical History of Social Media*. New York: Oxford.

Wang, J., Doll, W. J., Deng, X., Park, K., & Yang, M. (2013). The impact of faculty perceived reconfigurability of learning management systems on effective teaching practices. *Computers and Education*, *61*, 146-157.

Watson, A. (2008). Developing teaching practice for more effective use of asynchronous

      discussion: A preliminary investigation. *Proceedings of ascelite Melbourne*, 1090-1099.

Watson, W. R. & Watson S. L. (2007). An argument for clarity: What are learning management

      systems, what are they not, and what should they become? *TechTrends*, *51*(2), 28-34.

Westera, W. (2011). On the changing nature of learning context: Anticipating the virtual

      extensions of the world. *Journal of Educational Technology & Society, 14*(2), 201–212.

Westrum, R. (1991). *Technologies and society: The shaping of people and things.* Belmont, CA:

      Wadsworth.

Wiggins, G., & McTighe, J. (2011). *The Understanding by Design Guide to Creating High-*

      Quality Units. Alexandria, VA: ASCD.

Wysocki, A. F. (2001). Impossibly distinct: On form/content and word/image in two pieces of

      computer-based interactive multimedia. *Computers & Composition*, *18*, 137-162.

Your classroom. To the Power of Canvas LMS. *Instructure.* Retrieved March 24, 2022 from

      https://www.instructure.com/product/k-12/canvas-lms.