DIGITALIZED DANCE: THE RELATIONAL ETHICS OF TEACHERS

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A DISSERTATION

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ABSTRACT

This dissertation investigates the impact of digitalization on teachers' perceptions of their professional subjectivity and relationships within K-12 education in the United States. Assuming schools are political and ideological spaces, this project explores how digitalization informs teachers' identities, agency, and pedagogical values through a narrative inquiry approach.

I conducted semi-structured interviews with eight teachers from five high schools in the Midwest, utilizing narratives analysis to examine their personal and professional stories. These interviews provided insights into how teachers navigate the tensions between digitalization's promises, impacts, and realities. By analyzing the narratives, I uncovered underlying values of relational democratic aims and ethics in education.

Grounded in two central questions: how have teacher identity, subjectivity, and agency been challenged and uniquely developed within the digitalization of education and how teachers perceive its potential for fostering participatory agency – I utilize critical pragmatism and narrative analysis to highlight the tensions between the promise of digitalization and its practical realities that structure subjectivities. Teacher participants expressed frustration over students' struggles with technology, revealing a disconnect between the anticipated benefits and actual implementation.

This project contributes to the literature by addressing the ethical implications of digitalization, arguing that while it has the potential to enhance educational practices, it often perpetuates ideologies that prioritize convenience and efficiency over relational values. Ultimately, this research advocates for more critical inquiry into digitalization, emphasizing the need for educational stakeholders to embrace the complexity and ambiguity to foster environments that uphold democratic educational values and relational ethics.

TABLE OF CONTENTS

A DISSERTATION ... 1
Introduction ... 1
Research Questions ... 5
Dissertation Structure ... 6
Literature Review ... 9
Technology, Digitalization, Datafication ... 11
Compact Review of School Technology ... 11
Issues of ICTs, IoE, and AI in Digitalized Education ... 14
Digitalized Deficit Citizenship ... 19
Policy Reform and Neoliberalism ... 21
Identity, Subjectivity, Agency ... 25
Identity ... 25
Subjectivity ... 29
Agency ... 33
Relational Ethics ... 38
Relations in Relational Ethics in Education ... 38
Relational Democratic Education ... 41
Key Relational Ethic Concepts ... 45
Conclusion ... 53
Methodology ... 56
OntoEpistoParaTheory ... 56
Pragmatism ... 57
Critical Theory ... 59
Critical Pragmatism ... 60
Narrative Inquiry ... 61
Consideration for Ethical Research ... 62
Methods & Analysis ... 64
Participant Recruitment ... 67
Site Selection ... 68
Site and Participant Descriptions ... 69
Participant Schools ... *70*
Participants ... *72*
Data Collection ... 76
Data Analysis ... 76
Conclusion ... 79
Analysis: Digital Craft and Digital Shifting ... 80
Intersections between Digitalization, Neoliberalism, and Educational Practice ... 82
Technological Integration and Educational Ideologies ... 83
Neoliberal Education Policies & Digital Surveillance ... 88
Exploration of Digital Craft and Digital Shifting through Subjectivity, Identity, and ... 95
Navigating Subjectivity and Teacher Identity in Digitalization ... 95
Tensions of Digitalization on Teachers: Balancing Norms and Values ... 100
Agency in the Age of Digitalization: Pressures and Possibilities ... 103

Exploring Digital Craft and Digital Shifting through Relational Ethics 108
Relations in Education 108
Democratic Relational Education 113
Conclusion 115
Analysis: Digital Binding 117
Digitalization, Neoliberalism, and the Impacts on Educational Practice 118
Balancing Digitalization and Cognitive Development 118
A Communication and Continuity Burden in Neoliberal Education 119
An Erosion of Engagement: Neoliberal Inputs on Student/Teacher Relation 123
Subjectivity, Identity & Agency 124
Subjective Costs of Connectivity 125
A Paradox of Empowerment: Agency in Digitalization 128
Digital Grading and Engagement 130
Critical Digital Literacy and Challenges to Agency 131
Evolving Subjectivity and Identity during Digitalization 134
Interaction and Engagement 139
Relational Ethics 144
Relational Ethics in the Data: Into Digital Binding 145
Marie, Maude & Phoebe: From Touch to Text 146
Ethical Challenges and Paradoxes: Communication, Engagement and Authority 149
Reflection on Relational Ethics and Digital Binding 156
Digitalized Deficit Citizen 158
Conclusion 163
Conclusion 165
Appendix A 1 Page Precis 169
Relational Ethics: 169
Agency & Subjectivity: 170
Digitalization of Education: 170
Narrative Photovoice: 170
Appendix B Informed Consent Form 171
Appendix C Focus Group Guide 173
Appendix D Initial Participant Email Invitation 174
Appendix E: Sheet for Interviews 175
References 177

LIST OF FIGURES

Figure 1: *Second-Level Codes and Themes* 77
Figure 2: *Marie's Dashboard*.. 90
Figure 3: *Bobby's Assignment*.. 129

DEDICATION

For those who wanted to but didn’t, to my chaotic self, and all the teachers who foster agency – in all its forms.

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Chapter I

Introduction

Schools and classrooms are both political and ideological spaces. Students and teachers alike learn about power and domination in these political and ideological spaces (Thayer-Bacon, 2012). With this research, I explore the impact of digitalization of education on teachers' perceptions of their subjectivity and relationships with students within K-12 education in the United States. This query centers on how digitalization influences teachers' perceptions and understandings of their professional subjectivity, particularly in relation to their underlying values of the aims of education. Through their narratives, I found values of relational democratic aims for education and relational ethics. I am also examining whether current educational practices, mandates, and digital integration align with teachers' values and whether these factors contribute to their sense of agency. This project encompasses four main areas: teacher perspective, the impacts of digitalization, a utilization of a narrative analysis, and a query into the ethical and value-based concerns around the digitalization of education. The focus on teacher perspectives centers on how digitalization in education impacts teachers' perceptions of their professional identity, subjectivity, and sense of agency. I examine teachers' narratives and experiences to learn about their beliefs regarding educational technologies and how they align with their pedagogical values. This research further explores the broader implications of digitalization for teachers' views of their interactions with students and their teaching practices. Through teachers ' views, I assess how digitalization affects relations, professional satisfaction, and pedagogical impact. In this project, I was also concerned with the ethical implications and value-based tensions related to the digitalization of education. I consider whether digitalization in practice aligns with democratic educational values and relational ethics.

My intent in completing this research is to learn how teachers interact with and respond to educational technology, exploring their feelings, suspicions, and beliefs about it through their own stories. I want participants to reflect on their beliefs about what is helpful, challenging, successful, and harmful in digitalized education. Their reflections will initiate a critical inquiry into what changes are necessary for their craft. It seems many embrace digitalization because of the discourse framing technology as innovative and effective. While the digitalization of

education might just be the most educationally *effective* tool, if teachers find it hinders their pedagogical values, it is imperative to inquire into digitalization for educational purposes. This inquiry is crucial because the use of such tools and methods demonstrates to teachers, as professionals, and therefore to students, what societal values are and what they should be. In this context, technology is inseparable from value. Practical challenges, such as students struggling to use tools like Google Classroom effectively, illustrate a disconnection between the intended educational goals of digitalization and the actual experiences of learners and teachers. For example, one teacher noted:

> Sometimes it's just the kids accessing the technology. Even though we've been using Google Classroom now for a long time, the kids start using it way down in like fourth or fifth grade, they still come up here and don't know how to find their assignments. (Steve)

This comment shows the disconnect between the promise of digitalization and its actual implementation. The significance of this research lies in addressing the ongoing tensions and contradictions that persist amid widespread discussion about digitalization in education. Although integrating digital tools like Google Classroom is often viewed as innovative, practical challenges remain. These issues impede effective teaching and learning. By examining them, we can better understand how digitalization aligns with educational needs, guiding necessary changes in practice.

This project excludes an examination of specific digital tools, platforms, and virtual/online education in and of themselves. Instead, the focus is on a broader phenomenon of digitalization and its impact on educational practices from teachers' perspectives. I also did not want this study to focus on the details of the technical implementation of specific digital tools. Both foci would be interesting for future studies. The teacher participants' experiences in this study, their anecdotal stories, and my own lived experiences, also provide evidence of how digitalization affects teachers' sense of agency and connections to their work. The analysis and data collected for this study are also not student-focused; even while I consider the impact of digitalization on student-teacher relationships, I do not focus on student perceptions. The primary data are teachers' narratives about their professional experience, perspectives, and subjectivities. However, the teachers mainly talked about how digitalization impacts their students, thereby impacting their work.

This topic is personal to me, as my journey as an educator provides an example. Despite having taught in various contexts over the last 15 years, I have a deep, visceral fear of public

speaking, a fear from an unknown source of distaste for abuses of authority and domination. Many have questioned how I enjoy teaching but hate public speaking. I do not feel or find they are the same. With a few exceptions, classrooms were never places where I felt agency. One of my first teaching experiences was while living in Germany, teaching Turkish high school students English. Three times a week, we came together to study English for their *Abitur* (high school exit exams). We worked without digital technologies. I could sense their bodily presence and mine. I had the same face-to-face and minimal digital technology experience while teaching in Ohio and Belize. Later, I took an online high school social studies position.

I thought this was the perfect job: I could do what I loved while being a mom to an infant. Once trained with the equipment for virtual school, I felt excited, prepared, and even empowered to enact my pedagogy. Over the course of three years teaching online, I felt more distant and disconnected from my work (which I had once loved), my colleagues (which I had once enjoyed), my 'role' as a mom (which was, however, new to me), and less supported from any other employer or administration I had ever worked 'under.' I felt all parts of who I used to be, who I wanted to be, and who I was, in that moment, no longer mattered in my work. My work separated me from myself, from my personal and pedagogical values. I was not coming into my own — I was not in relation with those I worked with, no matter how much it was attempted. Students did not have (need to?) to communicate with teachers. Teachers rarely had to communicate with each other. I was being taken away, but I continued because I needed a job, and I continued to hope that something would change. There were no relations to reflect upon or pull me outward (Willett, 2012). I was alone with a screen, telephone, distance, and silence.

Teaching in person after teaching online was strange. I forgot some of the reasons why I loved teaching and could not find my groove, my desire to be with students and colleagues as I had. Once it came back, being in proximity with students in a room, sensing their excitement, boredom, embarrassment, and vulnerability, and knowing they sensed mine, made the interaction of education come back, and for me, the learning. I could feel agency, where I could speak/do/hear/listen/be but could set the tone in an open, relaxed environment. The relationships between the middle schoolers, myself, and the college students helped to redevelop my sense of agency. However, with COVID, students became like clandestine black boxes.

How subjectivities are in process is tied to our relationships, our environments, and our prior experiences. This project is, in some ways, a symptom of my imagination and anxiety. As I hold passionate ideals of democratic education, I also witness a current accelerated dive into a

disembodied digital landscape and wonder how it impacts teachers' perception of their professional identity, agency, and subjectivity. The current accelerated dive is not novel but arises from a contextual lineage of technology integration into the classroom and education through history. This history includes a political and socio-economic narrative not lost on teachers, their actions and rituals, or within physical (and increasingly virtual) classrooms. The narrative is often posited as democratizing and emancipatory, liberating for student and teacher alike, but has also been in many ways colonial, consumerist, and neoliberal in nature. My purpose here is to engage with professional teachers to gain insight into how they feel and perceive their identities, agency, and subjectivity while practicing their craft within the digital landscape. I hope to discover what impacts, changes, comings of being, formations of identities, and "relationality of the relationship(s)" (Biesta, 2004, p. 13) this increased digitization of education may have on teachers, their students, and education writ large. My interest grew from skepticism - if the digital landscape is not democratic or liberatory, as advertised, how can it provide a sense of participatory agency for teachers to support their students' growth and development best? I want to learn how teachers perceive their successes or failures within the reality of the digital education world in which they exist and teach and to what extent teachers perceive their agency in the activities they have done/are doing.

While digitalization in education is not a new topic, the originality of this study lies in its focus on the persistent issues and contradictions surrounding the integration of digitalization into education. This research aims to show how the ongoing digitalization affects teachers' professional subjectivities and the relations they have with students, particularly in the context of democratic education values and practices. By addressing the ethical concerns associated with digitalization and its impact on educational values, this research contributes insights into how digitalization influences the conception and practice of teaching and learning. It is important to acknowledge that the prevailing technology-as-progress narrative in the U.S. can hinder the development of critical inquiry into technology use. Students and teachers alike are expected to use digitalization for education. While I am not suggesting that people boycott digitalization for educational purposes, I am suggesting that the issues it creates and continues to create must be addressed. As the innovations continue, so do the limitations and drawbacks. I worry that, as some participants illuminated, we give up values of relationality for convenience. I believe this tension is already recognized – it's an assumption I hold – yet we still require students to use digital tools for their education. This creates a tension between what is felt (even guttural) and

what is done. While there is not a straightforward fix for this tension, educational stakeholders and academics can take some steps that might lessen the darker side of the wonderful digitalization that makes our lives and learning so much easier (convenient and efficient).

Research Questions

The research aims to learn about the effects of digitalization on teachers' professional subjectivities, identity, and agency and to analyze its broader implications for educational practice. The central research questions, therefore, are:

1. How have teacher identity, subjectivity, and agency been challenged and uniquely developed within the digitalization of education?
2. Despite the often-touted democratic nature of digitalization in education, how do teachers perceive its potential for fostering participatory agency to support their students and their praxis?

In order to address this research, I conducted semi-structured interviews with eight teachers from five high schools in the Midwest. I utilized critical pragmatism and narrative inquiry. I used Kim's Levels of Theory to help clarify how theory and methodology connect. The macro- level (philosophical frameworks or paradigms) theory was critical pragmatism (Kadlec, 2006; Biesta & Burbules, 2003; Feinberg, 2015). The second level of theory is the meso-level, which consists of methodology and methods. The methodological paradigm I have utilized is narrative inquiry (Bhattacharya, 2017; Kim, 2016; Gough, 1993) through individual semi-structured interviews. Kim's (2016) third level of theory consists of content or disciplinary theory. At this micro-level, I implement relational ethics (Lévinas, 1981; Noddings, 1984; hooks, 2014; Freire, 2004), which is discussed in the literature review. Rooted within feminist care ethics and influenced by Emmanuel Lévinas (Metz & Clark Miller, 2016), relational ethics serves as the theoretical backbone of my study. I also draw from Foucault (1977), often in conjunction with literature on subjectivity and relational ethics.

Initially, I designed the study to use narrative photovoice (Simmonds et al., 2015) and focus groups (Kinzinger, 1995). However, email feedback from participants indicated a preference for one-on-one interviews, leading me to pivot from focus groups to individual interviews. Although photovoice was initially planned, it did not resonate with the participants, possibly due to their high email volume and limited time. Therefore, I adapted the study by not requiring participants to provide visuals, which could have been burdensome. Despite this, two

participants did contribute visuals.

Since these adaptations, the study now employs narrative inquiry through semi-structured interviews (Creswell, 2003; Merriam, 2009) with guiding questions. The SHOWeD acronym (Wang et al., 1998) was used to structure interviews, focusing on the following questions: What do we SEE here? What is HAPPENING here? How does this relate to OUR lives? WHY do these issues exist? What can we DO about them? This approach helps explore teacher subjectivity and agency about digital technologies. Previous studies informed the interview questions, including photovoice projects by Wang & Burris (1997) and Simmonds et al. (2015), and Bell's (2016) environmental justice project.

Polkinghorne's (1995) paradigmatic cognition was used for analysis, focusing on categorizing data into thematic categories and identifying broad patterns. The study applied abductive thematic analysis, combining preset and emergent codes to connect preexisting theories with new data (Taylor-Powell & Renner, 2003; Timmermans & Tavory, 2012). This approach facilitates theory development and highlights gaps in existing literature (Thompson, 2022). While iterative and recursive, abductive analysis uses theory to create or refine categories and codes. This method, combined with the SHOWeD approach and narrative analysis, supports ethical research by emphasizing the relationships between researchers and participants and the connections within participants' narratives (Clandinin & Connelly, 1994).

Dissertation Structure

My dissertation is divided into six chapters. Chapter Two is the literature review. The literature review unpacks and then recomplicates the effects of technological advancements on educational practices through three central themes: a) the digitalization of education, b) subjectivity, identity, and agency, and c) relational ethics. First, I trace, in very short form, the historical integration of technology into education, highlighting changes from early broadcast media to modern educational technologies (Holy, 1949; Tyack & Cuban, 1995). I then look at ethical concerns related to Information and Communication Technologies (ICTs), the Internet of Everything (IoE), and Artificial Intelligence (AI), highlighting issues like surveillance, privacy, and algorithmic bias (Reed, 2014; O'Neil, 2016; Noble, 2018). Further, I look at critiques of neoliberal educational reforms' impact on teacher identity and subjectivity through marketization, privatization, and the commercialization of education (Ball, 2003; Levin, 1998). Secondly, I engage with how identity, subjectivity, and agency in teaching have evolved with digitalization. I

explore conceptualizations of these terms, as well as teacher identity (Britzman, 1993), commitment theory (Becker, 1960; Kanter, 1972), and Foucauldian ideas of power/knowledge and subject formation (Foucault, 1997). I also explore views of agency (Butler, 1990; Fraser, 1985) and the concept of communicative action (Habermas, 1985a; 1985b) and digital agency (Passey et al., 2018). Lastly, I address relational ethics, reflecting on how digitalization affects teachers' lives by conceptualizing relations as moral agents. I explore relational democratic aims in education and incorporate critical theorists from various branches of relationalism (Metz & Miller, 2016), focusing on Emmanuel Lévinas (1981), Nel Noddings (1984), bell hooks (2014), and Paulo Freire (2004).

In Chapter Three, I outline my theoretical framework and methodology. I introduce it as my *OntoEpistoParaTheory,* which integrates some of my views on ontology, epistemology, paradigms, and theory. I integrate pragmatism and critical theory to serve as critical pragmatism in order to address the complex arena of social research (Morgan, 2014; Biesta & Burbules, 2003). I discuss how the methods of this project shifted from photonarrative and focus groups (a bit to my disappointment) to individual interviews and narrative inquiry, and details of the methodological approaches used, including SHOWeD approach and abductive thematic analysis (Wang et al., 1998; Polkinghorne, 1995). Ethical considerations, such as privacy, integrity, reflexivity, and backyard research, are also addressed in attempts to show that this was a reflective and ethical study (Glesne, 2014; Punch, 1986).

Chapter Four analyzes the first two themes of this study, Digital Craft and Digital Shifting, created in the coding and thematizing process. I explore how technological changes influence teaching practices and identities through the lenses of digitalization of education and neoliberalism (Noble, 2018; Means, 2018). I discuss how the accelerated integration of digitalization due to the COVID-19 pandemic affects teaching practices, mental health, and the balance between more "traditional" and digital pedagogy (Levins, 1998; Santoro, 2018). I also look into the impact of neoliberalism on digital surveillance and teacher agency (Blackmore, 2020; Foucault, 1977) and then consider the implications for relational ethics and democratic engagements (Noddings, 1984; Dewey, 1930).

Chapter Five is a critical analysis using the final theme, Digital Binding, created during the coding and thematizing phase of this study. In this chapter, I examine how digitalization intersects with neoliberalism, identity, and agency through teacher participants' reflections on the impact of digitalization on their relations with students. I consider the implications of teachers '

reflections on digitalization within relational ethics. I also re-introduce the concept of the Digitalized Deficit Citizen. This analysis chapter highlights the need for a balanced approach to educational digitalization that encourages and fosters relationality and ethical values in education.

Chapter II

Literature Review

Education in the United States has transformed in recent decades due in part to the constant and unyielding progression of digitalization and technological innovations. Concurrently and understandably, academic interest has grown regarding the connections between technology, education, and student/teacher agency. Through this chapter, I review literature within three central themes paramount to this project and their intersections: 1) technology, digitalization, and datafication of education through neoliberal imperatives; 2) subjectivity, identity, and agency; and 3) relational ethics. The objective is to present a comprehensive review of the literature and conceptual frameworks that have been integrated into the abductive analysis for this research, fostering a contemplation around the core research questions:

1) How has teacher identity, subjectivity, and agency been challenged and uniquely developed within the digitalization of education?

2) Despite the oft-touted democratic nature of digitalized education, how do teachers perceive its potential for fostering participatory agency to support their students and their praxis best?

In the first section of this chapter, the digitalization of education shows a significant shift in how knowledge is created, disseminated, and accessed. Technological advancements in education, including the ubiquitous and rapid influx of information and communication technologies (ICTs), have blurred the boundaries of time and space, opening up new areas of learning and teaching. From online learning platforms to new virtual possibilities, these influential technologies alter educational spaces and pedagogies. During the rush and intensity of digitalization, there are many questions about how well it works, if it is fair, and the ethical implications of its use. Issues such as data privacy and the commodification of education are significant and have prompted scholars to examine and theorize educational technology's promises and perils. By engaging with this literature on technology, digitalization, and datafication in education, I aim to grasp how it impacts democratic spaces and educational practices. I am curious about all the different ways these changes play out. I structured this section to outline the historical evolution of technology in education. I then turn to issues that

present digitalization and datafication to the public, such as privacy issues and algorithmic discrimination, and how this pertains to the educational realm. I then highlight the interplay of neoliberal policy with the implementation of digitalization educational technologies.

The second section of this literature explores identity, subjectivity, and agency as they relate to teaching and learning. Teachers' identities, subjectivity, and agency also evolve as educational landscapes change with various technological advancements. The digitalization of education builds and diminishes teacher identity and agency, presenting a unique paradox. While digital tools "streamline" (a term oft used by participants) certain aspects of teaching, they can also introduce various challenges and constraints that have the potential to alter pedagogical value and practice and even democratic educational aims. This section highlights various conceptualizations of identity, teacher identity, and teacher professional identity, as well as developing ideas of political identity awareness (Britzman, 1992) and commitment theory (Becker, 1960; Kanter, 1972). Connections to subjectivity are highlighted, and subjectivity is explored by situating it within Foucauldian (1977) ideas of power/knowledge, discourse and subject formation, and technologies of the self. Then I explore agency, exploring critiques of Foucault (Butler, 1990; Fraser, 1985). The subsection on agency also looks into communicative action (Habermas, 1985a; 1985b), teacher professional agency (Pyhältö et al., 2012; Vähäsantanen & Eteläpelto, 2009), and digital agency (Passey et al., 2018). These views of subjectivity, identity, and agency are included in this literature review as they are drawn on in the analysis of interviews and highlight the subtle interactions between these conceptualizations, teacher responses, and a digitalized educational landscape.

The third and final section of this chapter considers relational ethics. After exploring identity, subjectivity, and agency in the digitalized landscape, conceptualizing relations as ethical structures helps me reflect on how digital landscapes impact, create, and recreate aspects of teachers' lives. While individual subjects can have agency, the relationships between them can also influence ethical considerations and decision-making (Noddings, 1984; Lévinas, 1981; hooks, 2016; Friere, 2004). This section focuses on explaining the conceptualization of relations as the moral agent, relational democratic aims of education, and critical theorists from within different branches of relationalism (Metz & Miller, 2016). This section highlights critical approaches from Nel Noddings (1984), bell hooks (2014), Paulo Friere (2004), and Emmanual Lévinas (1981) that were critical to the analysis of this study.

By delving into these three areas: a) technology, digitalization, datafication, b) identity, subjectivity, and agency, and c) relational ethics, my goal for this literature review is to clarify the complex interconnections that are shaping modern educational practices and also emphasize the critical need for a more complex reading and analysis of these phenomena in educational research and praxis from the narratives of teachers to think through the democratic prospects of current educational processes. Through this chapter, I also engage with my core research questions and explore their connection to the topics.

Technology, Digitalization, Datafication

Since the late 19th century, technological advancements have shaped and reshaped societies, influencing various aspects of human life. Technology has been touted in education as transformative, promising to revolutionize learning and better educational outcomes. From the invention of the telephone and its integration into educational spaces to the current influx of artificial intelligence, technology has been ushered into classrooms and offered new opportunities for pedagogy. However, this integration of technologies into education has also come with challenges and controversy. This section investigates the relationship between technology and education, tracing its evolution from early innovations to contemporary debates on newer technology uses. This section also explores how the development and utilization of technologies relate to ideologies such as Taylorism and neoliberalism, which in turn have influenced educational policies. Also under examination in this section is the impact technological innovations have had on teaching and learning, from educational radio licenses to online learning platforms. I also consider views and literature on the role of market forces and neoliberal policies in promoting the privatization and standardization of education, often at the expense of equitable access and pedagogical autonomy. Additionally, this section considers the implications of datafication and digital surveillance in educational settings, which bring up questions of privacy, equity, and algorithmic bias. I hope to highlight the tension between personalized learning initiatives, concerns about data privacy and algorithmic discrimination to highlight technology-mediated education's complex ethical and social dimensions.

Compact Review of School Technology

Technology has played a role in enhancing society since the late 1800s, a period often considered as the beginning of the technological revolution. Innovations such as the steam

engine, telegraph, and electrical systems changed communication and industry. These innovations influenced educational reforms as various technologies were integrated into teaching and learning. For example, the integration of the lantern projector, phonograph records, and film strips changed teaching methods. Ideologies, like Taylorism, which emphasized efficiency in education (and industry), promoted the use of technology to improve productivity. Over time, hardware, software, and social media advancements have further evolved the educational landscape, influencing how knowledge is disseminated and accessed. Technology has been used as a vehicle to fix educational woes, and innovation is the rhetorical key to implementation. As per the 1983 Nation at Risk report (National Commission on Excellence in Education), federal reformers were struck by public worry about the US public educational system, which subsequently urged reformers to *fix* education. One approach they adopted was to bring business ideologies into schools to address issues related to administration, bureaucratic tasks, and accountability.

The telephone, radio, television, computers, and the internet added to the wave of innovative educational technology in the 20th and 21st centuries (Kentnor, 2015). In 1922 seventy-three educational establishments were granted standard broadcast licenses (Kentnor, 2015). However, only half of those holding a license had their stations on air (Wood & Wylie, 1977). By the end of the 1920s, 176 educational institutions had broadcast licenses (Kentnor, 2015). There were, however, regulatory issues and economic hardships from the Great Depression in 1929, which had a significant impact on educational institutions' radio broadcasts (Kentnor, 2015). By then, out of the 176 radio stations in educational settings, only 35 remained in operation (Kentnor, 2015). To stay operational, some institutions started "school of the air" programs, which offered daily educational content covering science, literature, history, and music (Kentnor, 2015). The first of these programs started in Ohio, called the Ohio School of the Air, which the Ohio State Department of Education launched in 1928 (Holy, 1949; Kentnor, 2015). Television made appearances in the educational enterprise. In 1969 the first national public television system, the Public Broadcasting Service (PBS), was founded (Casey, 2008). Radio and television supplied the delivery of education, but being one-sided, they lacked communicative ability.

In that same year, 1969, Dorsett Educational Systems started warehouse-style education (Tyack & Cuban, 1995), where students would come into a "modern" looking building (school?) to learn from *learning machines*, with little involvement from humans/teachers. If students

became motivated enough to "learn" from the "learning machine," they got a prize (Tyack & Cuban, 1995). Many policymakers in the 60s and 70s were sure that business expertise (such as Dorsett Educational Systems) in education would lead to higher student achievement. Children were expected to learn while a company profited (Tyack & Cuban, 1995). Critics thought students did not learn with these approaches; students were only memorizing (Tyack & Cuban, 1995). After adopting the microprocessor (CPU - Central Processing Unit), its computing power, automation, efficiency, and innovative capabilities made it indispensable to the educational industry (Casey, 2008). The advancement of the microprocessor changed the delivery of lessons and teacher-student interactions (Casey, 2008). By the 1980s, telecommunications provided a wider array of continuing and graduate degree programs which increased the accessibility for students (Casey, 2008).

By the mid-1990s, the US federal government decided that US classrooms should be linked to the internet and that computer literacy would be fundamental to K-12 education (Trend, 2001). At the same time, school choice had momentum (Ravitch, 2010), and the "information economy" boomed with technology advertisements. The school choice movement promotes the idea of educational competition by having parents and students select their most favored type of school (homeschooling, public, private, charter) (Ravitch, 2010). In the 1990s, corporate influence strongly influenced educational policy, laying the groundwork for the school choice movement, which gained significant traction in the 2000s with the implementation of market-driven reforms where schools were expected to compete for students. Technology companies targeted educational institutions for their educational products. The technology advertisements sold how innovative and revolutionary their products are - they can be more personalized and more individualized, offering more choice and freedom within educational spaces. Such advertisements were directly in line with the goals of the school choice movement, which promised to empower students and parents with educational choices that could suit their needs and preferences. The school choice movement and EdTech benefit from making the educational landscape more marketized and competitive. Educational reform rhetoric instilled fear in some Americans, proclaiming that a lack of technological literacy would mean

economic and educational downfall (Trend, 2001). Educational institutions invested in computer hardware, software, and computer literacy classes. Through this investment, the tech industry penetrated curriculum (Trend, 2001). However, it is essential to recognize that this transition was not arbitrary. Schools needed (and need) to evolve with the world's demands. The speed of this agenda, driven by the intersection of corporate and political interests, accelerated its adoption but also exposed it to influences that prioritized profit and political gain over educational quality and the needs of teachers and students. Over time this penetration of curriculum has developed, which now includes targeting educational institutions with digital tools, devices and hardware, digital platforms, content creation and distribution, teacher training and support, data analytics, and personalized learning. Virtual schooling began to surface as new technologies were better equipped to support two-way communications. School districts continued to add and change their technology, making classes and curriculum individualized for student accessibility and success.

Most US schools had technologies that used two-way communications (email in its most basic form) before 2020, which was beneficial when school moved entirely online in response to the public health crisis. This move was termed ERL (Emergency Remote Learning) or ERT (Emergency Remote Teaching). EdTech companies benefited financially from the pandemic because continuing schooling depended on its platforms. An extreme example is Proctorio's 900% business increase during only the first few months of the pandemic (Swauger, 2020). Proctorio is a company that algorithmically proctors tests. After some years of pandemic pressures in education, the uses, risks, and benefits of technology for education are still on our minds – how should technology be used, and to what ends? Who does it help? Hurt? How can it be made better? Make us better? How does it change individuals and society through educational implementation?

Issues of ICTs, IoE, and AI in Digitalized Education

Technology has been the focus of much educational debate in the United States. Many views support implementing new and more technology, and many are against it. These views fall on the technological spectrum bounded by technological determinism (Reed, 2014) and solutionism (Morovoz, 2013) and the view that the wider use of any ICTs (Information and communication technologies) or more use of the IoE (internet of everything) and AI (artificial

intelligence) will bring an end to humanity. The solutionist views brought more digitalized technology and datafication into schools. Teachers teach and are evaluated with ICTs and IoE. Students use ICTs and IoE regularly for learning and evaluation. Most recently, AI has become a ubiquitous educational tool, often without regulation or understanding by many who implement it.

Information and Communication Technologies (ICTs) are not simply tools but are social and environmental forces that impact our social interactions, self-conception, and conceptions of reality. Digitalization and datafication are part of our everyday social lives. Digitalization is how our social life is organized with and through digital technologies, various ICTs, and the IoE. We use email and virtual meetings, instant messaging and chat boards, social media, and sharing sites, play online games and esports, create, edit, and move data from and within healthcare and banking apps and all the sensory devices connected across the IoT (internet of things – like smart-fridges, smart-watches, Fitbits, doors). Such digital technology uses corporeal information and reduces it into data points that inform marketing and content. It also predicts what that citizen subject will or should do next and how this impacts social relations/interaction. Datafication is "the practice of taking an activity, behavior, or process and turning it into meaningful data" (Leonardi & Treem, 2020, p. 1602). As computer sciences advance, there are more working definitions of AI. However, for me, this makes the most sense as its definition, "the combination of cognitive automation, machine learning, reasoning, hypothesis generation and analysis, natural language processing, and intentional algorithm mutation producing insights and analytics at or above human capability" (IEEE, 2017, p. 16). This definition integrates the replication of human behavior and consciousness with the role of achieving or surpassing human-level capabilities.

IoE (Internet of Everything) and ICTs within education are part of algorithmic education, which is the collection of student and teacher data points from their interaction with the IoE and ICTs. Teacher and student data is then subjected to algorithms that are the basis for teaching and learning. Specifically, this means that the data collected from their interactions with the IoE and ICTs is analyzed using mathematical processes to identify patterns and insights. These algorithms help determine effective teaching methods and track student progress, which ultimately guides educational experiences. The process changes the teacher's role from teacher to data analyst and students into data subjects – based on mathematical logic whereby the student

interacts with the IoE and ICTs to make more data – in a reproductive circle. Teacher and student data is stored and can be mined at any time for "varied purposes, such as making judgments on future educational and economic pathways for students, and/or potentially sold as a commodity to third parties" (Means, 2018, p. 102). Student data is collected and used for individualization and personalized learning. This process often occurs in under-resourced districts where such 'data points' are often touted as the means to solve all problems (Crooks, 2017). By 2013, most teachers were evaluated based on digital technologies that allowed the inclusion of student test achievement to factor into their evaluation (Sawchuk, 2015). There are multiple ways digital technologies can evaluate teachers, including but not limited to 1) student performance metrics and 2) data analytics and "Dashboards." These many data sets are used to evaluate teacher performance algorithmically and, in some cases, determine whether or not they keep their job (O'Neil, 2016). Given the increased reliance on data for evaluation, it is important to also consider the implications of privacy. The implications of privacy are important because heightened data collection raises concerns about surveillance and the potential misuse of personal information, which can undermine trust in educational environments and affect the well-being of both students and teachers.

Surveillance, privacy, and control are inherent components of using ICTs and IoE in education, impacting epistemological and ontological framings (Hintz, 2018). Epistemologically, people have adapted to deal with the surge in available information, the ubiquitous 'information overload' (Keegan, 2012). This overload makes truth more elusive. Simultaneously, as people use the web, algorithms and surveillance are at play, which filter which information is provided to specific users; this can create an 'echo chamber' that impacts what and how knowledge is created (Samuels, 2011). Lynch (2019) also discusses how echo chambers and filter bubbles limit the diversity of information and reinforce existing beliefs, which can deepen polarization and hinder critical thinking. AI can create and manipulate information and content which can alter perceptions of truth and reality. Ontologically speaking, technologies can blur the lines between our physical and digital selves; how we act and perform online impacts how we view ourselves (Floridi, 2013). Knowledge of being constantly surveilled can impact our choices to act and how we understand our control over our existence (Foucault, 1977). Thereby, the digitalization of education impacts human subjectivity. Human subjectivity implies that people's inner worlds are intertwined with external factors like cultural norms, ideas, principles, and

interactions - it emphasizes that our sense of self is interconnected with the world around us, and people are influenced by it while influencing it (Mansfield, 2000). Subjectivity will be discussed more in the next section.

A major ethical concern regarding the integration of AI in K-12 education centers on the privacy of students and teachers (Regan & Jesse, 2019; Stahl & Wright, 2018). Privacy breaches primarily happen when individuals disclose too much personal information online. Despite existing laws and standards designed to protect sensitive data, breaches by AI-based tech companies regarding data access and security heighten privacy worries (Murphy, 2019; Stahl & Wright, 2018). To address these issues, AI systems seek user consent to access personal data. While these consent requests are intended to safeguard privacy, many individuals grant permission without fully understanding the extent of the data (metadata) they are sharing. This lack of informed consent effectively diminishes personal agency and privacy. As AI systems promote less introspection and independent thought, people's autonomy is reduced (The Institute for Ethical AI, 2020).

Additionally, scholars have pointed out the ethical dilemma of compelling students and parents to utilize these algorithms in their education, even if they consent to relinquish privacy (Bulger, 2016; Regan & Steeves, 2019). Individuals have little choice if public schools mandate these systems in such cases. Problems can arise when surveillance systems impact people's capacity to act according to their interests and values, impacting their agency. Predictive systems created by algorithms threaten the agency of students and teachers, as it impacts their ability to control their own lives (Regan & Jesse, 2019). Applying algorithms as a predictor of peoples' actions based on their data raises concerns about fairness, personal agency, and freedom (Citron & Pasquale, 2014). Consequently, the risks associated with predictive analysis also involve the potential of reinforcing existing biases and social discrimination (Murphy, 2019).

Digital technologies have transformed collective action by involving new groups and people in new ways, including - forming various social movements (Young et al., 2019). ICTs and the IoE have connected people from around the globe, enabled long-distance relations of all types, and exposed people to differences. Digital technologies also reinforce inequalities in multiple ways. Algorithms offer new forms of racial profiling (Noble, 2018; Murphy, 2019). Various types of technological redlining are based on capital, race, and gender factors (Noble, 2018). While contextualizing datafication and data surveillance, scholars have highlighted its

implications as a method of social sorting (Gandy, 1993; Lyons, 2015; Hintz et al., 2019). Gandy (1993) coined the term 'panoptic sorting,' a retrospective of Foucault's 'panopticon,' which will be discussed later. Gandy's (1993) 'panoptic sort' describes how people's data, considering aspects of citizenship, employment, and consumer habits, are collected and organized to regulate access to essential goods and services within capitalist societies. This system inherently favors certain groups while disadvantaging others (Hintz et al., 2019). Hintz et al. (2019) suggest that governing is then based on this data-gathering system, which is used to "profile, sort and categorize populations" (p. 3). Gandy (2021) expands on this notion, suggesting the panoptic sort is discriminatory as it assesses people based on their perceived value or worth, permeating various facets of their lives as citizens, workers, and consumers. Gandy (2021) then highlights a potentially problematic trend where marginalized communities, particularly people from low-income backgrounds and people of color, are continually dehumanized and commodified in the data-driven metric. Gandy (2021) suggests that such groups are depicted as defective or disposable within the capitalist marketplace, reinforcing and perpetuating systematic inequalities and power dynamics. Datafication and digitalization are, therefore, conceptualized as being not only a tool for surveillance and control but also a way for maintaining existing social hierarchies and marginalization (Gandy, 1993; Lyons, 2015; Hintz et al., 2019). Gandy (1993) posits that the technological systems of control implemented in society cannot serve democratic goals, stating:

> It has been and remains my view that the panoptic sort is an antidemocratic system of control that cannot be transformed because it can serve no purpose other than that for which it was designed - the rationalization and control of human existence. (Gandy, 1993, p. 227)

Profiling and surveillance potentially protect and strengthen citizens and society, yet these processes are "designed to benefit the interests of those who own the tools" (Means, 2018, p. 112); in effect, algorithms mirror the values and biases of their creators, who hold positions of power (Hrastinski et al., 2019). Citizens (student/teacher) data collection is inseparable from the digital economy (Hintz, 2019) and impacts how people act as citizens, consumers, and teachers and students. Within law enforcement and security forces, there has been a backlash against profiling as a driving force in the acceptance of racism, xenophobia, transphobia, and religious discrimination. However, within a datafied society – and in educational systems — such profiling is happening on larger scales, under the assumption that algorithmic predictions are

unbiased and objective, enabling a datafied system to tell us 1) what to do next and 2) to whom to do it. Noble (2018) offers a real example of googling a term like "Black girls" or "Black women" results in hypersexualized and derogatory content like porn. Noble argues that these results are based on existing societal stereotypes about Black women, which the algorithms then reinforce, as they are designed to prioritize certain content based on its popularity. Therefore, such algorithmic profiling can have dehumanizing impacts on users, and those users include students and teachers.

Digitalized Deficit Citizenship

The deficit model (Ladson-Billings, 2010) in education plays a role here. When teachers and administration assume particular students from various groups – poor, black or brown, non-English speakers, students with disabilities — are unable to accomplish hard things, challenging tasks, or complex thinking, they have low expectations for these students. The students then internalize or perform to meet low expectations. I contend that the digitalization of education is a more complex arena for the deficit model to grow. Instead of being aware of the problems of this way of thinking and treating students and reflecting on, then acting on such reflection, the data reinforces the stereotypes for low expectations for certain students – predicting what they are or are not capable of doing. For example, if an educational platform collects student data, like reading fluency rates and engagement metrics (like the time spent on assignments or participation in discussions) indicating that English Language Learners struggle with reading comprehension, teachers might use that data to justify limiting these students to reading only basic materials. While data can be a valuable tool for gauging student needs, relying solely on it to determine instructional practices can reinforce the belief that students cannot handle more complex and critical tasks. Instead, it is important to consider multiple aspects of a student's abilities, including teacher observation and interaction and student interests. Doing so creates a more holistic version of their potential. Failing to do so, limits their learning and opportunities for critical thinking which then marginalizes the student by reinforcing low expectations. This reliance on data and algorithmic assumptions takes the onus of responsibility for discriminatory teaching practices away from the teacher and has them fall back on the supposedly objective and unbiased reasoning of algorithmic assumptions derived from machine learning. Professional educators' voices and opinions are not included in the data the machine learns from or in the

algorithms' creation. In the process, data-driven systems risk reinforcing the very biases and assumptions embedded in the deficit model. Teachers may still bring their professional ethics and judgment to bear, but the reliance on data and algorithmic assumptions can subtly shape their decisions in ways that reinforce low expectations for marginalized groups. Rather than empowering teachers with a fuller understanding of their students, these algorithms can narrow focus to encourage teachers to see students primarily through data metrics – metrics that may fail to capture the full context of a student's abilities, interests, and experiences. This reliance on data thus risks perpetuating inequalities particularly for minoritized students, by reinforcing the tendency to 'other' them and limit their educational opportunities.

People self-silence when feeling surveilled (Friesen, 2011). The self-silencing effects of surveillance reinforce the assumptions made in the deficit model. This goes "to the heart of democratic engagement and civic action" (Hintz et al., 2019, p. 111) and how people engage with the digitalization of education. Civic action and democratic engagement can be stifled when individuals in society feel they cannot engage in public discourse. It can lead to less voter turnout and less participation in social movements or community organizations, which impact democratic ideals of participation. Mass self-silencing could also lead to more power in the hands of already powerful groups, meaning less powerful groups and individuals would have less access, and less governing power.

Datafication and digitalization can lead to quantifying student performance based on a standardized criterion. Datafication and digitalization are rooted in rationalism, whereby the corporeal and affect are unnecessary for knowledge of human behavior, as well as leaving out physical context, or when using it as a factor, devaluing it if the data it provides are not in line with a preconceived standard. A paradox lies in that these ICTs and the IoE recognize the body – the human – but in that recognition lies space between the data points and the citizen – "between the human and the digital," which is the politics of data (Hintz et al, 2019, p. 59). This creates space between what is lived and what is measurable. In education, this space can represent the gap between the teachers' and students' lived experiences and the data-driven metrics used to assess their academic progress. This is reminiscent of the deficit model as it fails to acknowledge or address this gap instead of focusing only on the deficits or preconceived views of student capabilities without further considering broader socio-cultural influences on learning outcomes. Our perceived political identities (*our* in the sense that we own them), like "gender, race, and citizenship, become nonlinearly connected to an endless array of algorithmic meaning, like web

use and behavior data" (Hintz et al., 2019, p. 59). In this sense, our data – or information is seen as distinct from and more useful than our connectedness and materiality. For Hayles (1999), this distinction between information and materiality:

> allows the construction of a hierarchy in which information is given the dominant position, and materiality runs a distant second… [and] embodiment continues… as if it were a supplement to be purged from the dominant term of information, an accident of evolution we are now in a position to correct. (p. 12)

The hierarchy Hayles discusses comes into being and operates from social discourse, institutional practices, cultural norms, and technological frameworks.

Citizens within digitalization are, therefore, political subjects implicated in a social and economic hierarchy where they are subjects *of* power and subject *to* power (Isin & Ruppert, 2015; Henry et al., 2021). Citizen agency is constrained, and citizen resistance and dissent are limited because of the power structures in place (Butler, 1990; Hintz et al., 2018; Henry et al., 2021) or within the hierarchy of interrelations within controlling groups. The limitations are often overlooked or unrealized because of the normalization of datafication, ICTs, and IoEs – the desire for the path of least resistance, a desire for easy and quick reporting, content delivery, and solutions. Given the intensification of labor, such a desire for a path of least resistance is understandable (Apple, 1988). This normalization of datafication allows unconscious bias, existing inequalities, and technology-facilitated abuses (Henry et al., 2021) to permeate educational goals and outcomes. Neoliberal educational policy reform has laid the groundwork for normalizing datafication and digitalization in education.

Policy Reform and Neoliberalism

Education reform is spreading globally as a "policy epidemic" (Levin, 1998). The World Bank and OECD (Organisation for Economic Co-operation and Development) drive this movement, appealing to politicians from both sides of the aisle with various beliefs (Ball, 2003). Policy and reform inform educational landscapes, which not only impacts what educators do but "changes who they are" (Ball, 2003, p. 215). Policies that implement new expectations, responsibilities, standardization, and accountability impact professional identity. Teachers were once seen as and viewed themselves as professionals with autonomy over many classroom decisions, but many newer policies have impacted how teachers see themselves within education (Ball, 2003). Education reform has many aspects which come together through marketization and

managerialism. These policies impact educational institutions and teachers' identity and the concept of teaching. This section reflects on the course of neoliberal reform. This type of literature helps me further understand evolving teacher subjectivities and their connection to educational institutions and change.

Since the 1980s, US K-12 education policies have shifted toward marketization and corporate management (Cohen et al., 2018; Mehta, 2013; Ravitch, 2010). This has resulted in privatization technocratic logics for school and district management based on accountability and efficiency. Such policy shifts stem from the rhetoric of innovation and creativity as cornerstones for K-12 education. Schools are not only expected to educate students in reading, writing, and arithmetic, but they must also teach them how to be future innovators to fix economic precarities. These initiatives and policies come from venture philanthropies – such as "Gates and Walton foundations, the Heritage Foundation, American Enterprise Institute, Goldman Sachs, American Legislative Exchange Council, Rupert Murdoch's News Corp, and neoliberal politicians across the Democratic and Republican parties" (Means, 2018, p. 81). These policies have come into law through *No Child Left Behind* and *Race to the Top*. Laced with lyrical innovation and creativity, such laws encourage a "transfer of public assets over to publicly unaccountable private entities" (Means, 2018, p. 81). In a democracy, education should be conceptualized as a public good, preparing students to engage in civic life and strive for social equality actively (Labaree, 1997). As education becomes more privatized, the moral and ethical democratic aims for public education morph into consumerist, market-based aims.

Larner (2000) developed three analytical categories to describe neoliberalism. Larner's categories set neoliberalism up as policy, ideology, and governmentality. As part of policy, neoliberalism supports the decentralization of government and a free market in all areas of life (Larner, 2000). With this decentralization of government comes less opportunity for the people or state government to combat the hegemony of the wealthy elite. Neoliberal ideology is conceived of as a hegemonic worldview where the elite and/or ruling classes maintain their positions and status (Larner, 2000). Neoliberalism as governmentality refers to the dominant discourse formed through economic rationalities that expect and even create citizen subjects who should govern themselves in keeping with open entrepreneurial and competitive markets. Neoliberalism as governmentality is rooted in a set of rules of governance, including the educational system in which participants are led to see themselves as "individualized... active subjects responsible for enhancing their own well-being" (Larner, 2000, p. 13). Each individual

must be an active agent in the domains of their being and as a member of society.

Individual autonomy and marketization are two integral components of neoliberalism (Duarte, 2021), alongside the competition mentioned earlier. Neoliberalism expresses a capitalistic desire for "efficiency and quality" that manipulates people into free market competition (Duarte, 2021). People (consumers) are drawn to free market competition because of their desire for efficiency and quality. Businesses compete to gain more consumers and offer their 'better' and 'more efficient' products at a 'good price,' which incentivizes consumers to patronize their business, which leads to more competition. "Consequently, the past half-century of education reform has intersected with the public opinion that education no longer exists solely in the bureaucratic organization of the school but in its public management through accountability" (Duarte, 2021, p. 2).

Within neoliberal rhetoric on *imagination* and *creativity*, social dimensions of such terms are ignored and simplified into economic value – it is reduced to an "economic vision of entrepreneurialism, technical knowledge, and subjectivity" (Means, 2018, p. 85). Neoliberalism as governmentality and policy (Larner, 2000) are apparent in U.S. educational history. The neoliberal presence in educational history provides a foundation for the value placed on technologies and the use of ICTs in public schools. EdTech companies tout the successes that their technologies afford students through their capacity for individualizing learning. The idea of privatization and marketization of education suits EdTech's individualization of learning. Algorithmic learning technologies "represent a form of 'customized privatization' " (Means, 2018, p. 122). Public information is outsourced to the private sphere, "eroding the public information commons that has been a basic tenet of U.S. democracy" (Noble, 2018, p. 51). Outsourcing peoples' information to private spheres provides more specialized and individualized services to people, but the private sphere also prioritizes profit over the interest of the public. If algorithmic education should be used to "enhance the emancipatory aspects" (Means, 2018, p. 122) of education, then educational technologies would need to be reconsidered along a different set of values "outside and beyond the logic of the neoliberal control society" (Means, 2018, p. 122).

Corporate management practices in education have been associated with the erosion of teacher professionalism concurrently with a standardization trend (Ball, 2003; Apple, 1988; Hall & McGinity, 2015). Paulo Freire's critique of "banking education" highlights knowledge as static objects, lifeless and detached from subjective experiences (Means, 2018). From this approach,

the consequence is that teaching and learning become subservient to quantification and objective metrics, perpetuating a cycle of testing and accountability measures. Schools with high test scores are seen to validate this approach, but schools with lower scores show the need for more tests. This perspective also sees test-driven accountability measures and the encouragement of privatization as having positive effects when others see them exacerbating existing social and political disparities. Means (2018) finds that despite decades of neoliberal educational policies emphasizing standardization, privatization, and high-stakes testing, the income-based achievement gap has widened by 40 percent. According to Means (2018), this gap shows these policies' failure to address foundational social inequalities. Blackmore (2020) posits that emphasizing competitive individualism conserves a vision of the "self-maximining autonomous androcentric subject" as the educational ideal and norm (p. 33). Duarte (2020) contends that this approach undermines teacher subjectivity and agency, which then diverts from democratic educational goals. Therefore, neoliberal policies reshape educational labor markets and systems, limiting possibilities for transformative educational interests and social justice (Blackmore, 2020).

Because neoliberalism influences the public education system, teachers must focus on how to engage with ethics that prioritize social, intersubjective, and substantive justice. Addressing the impact of neoliberal policies on teacher subjectivities and agency in this context of digitalization in education is paramount. Within the digitalization of education, neoliberalism can mean increased pressure on teachers to adapt to and use new technologies and procedures that stress standardized content to meet quantifiable outcomes. On one side of the coin, digitalization offers teachers opportunities for personalized learning, increased access to resources, and collaboration. However, the other side reflects existing social and economic inequalities, intensifies surveillance, and can undermine teacher professionalism, subjectivity, and agency. Neoliberal policies often tend to prioritize efficiency and accountability, using metrics of standardized test scores and graduation rates to produce efficiency and accountability. This process can lead to the narrowing of curriculum – so teachers have to teach to a test – and devaluing critical thinking, social interaction, and creativity. Teachers often feel they must conform to these expectations, limiting their ability to be innovative and creative in their craft and in response to diverse students.

Further still, the commercialization of education through digitalization, as embedded in neoliberal ideals, increases as companies want to profit from the digitalization of learning and

teaching. This results in the commodification of education, where teachers and students are consumers rather than active participants. Consequently, teacher subjectivity and agency are affected. While digitalization provides teachers with more access to a wider variety of educational resources and opportunities, it also complicates their professional roles. Teachers have to navigate the power dynamics that come out of standardized and market-driven systems, which can diminish their autonomy and impact their teaching methods and philosophy. Therefore, teachers need to critically reflect on their craft and take part in collective action to reconcile neoliberal policies with their professional values and commitments to their students.

Identity, Subjectivity, Agency

Who am I? How did I become me? Have I always been this way? What made me, me? Am I naturally this? Questions of this sort have been asked in philosophy, psychology, sociology, and anthropology for centuries. Identity and subjectivity are two terms used to describe the exploration of such questions of self-hood and the social connotations. Chryssochoou (2003) defines *identity* as a symbolic relationship between a person and their social community. Identity, or one's sense of self – how you perceive yourself – is tied to social categories you identify with and differentiate yourself from (Chang, 2009). "Subjectivity helps to distinguish citizenship from other sociological concepts such as identity" (Henry et al., 2021, p. 7). Subjectivity is the connection between one's consciousness and role in normative society (Ikäheimo, 2017). Agency is the capacity to make choices and act to influence one's life. Conceptions of subjectivity, identity, and agency are discussed in this section. The point of focusing on these three concepts is to better analyze teachers' responses to questions about their experiences with the ubiquitous digitalization of education - and life. In this sense, it is not to claim what the only true identity, subjectivity, subject position, or agency is, but a conceptual pool to draw from in order to provide an analysis for this research.

Identity

Identity, rooted in a post-structuralist approach, examines how identity is shaped by social structures and discourse while acknowledging people's capacity for agency (Britzman, 1992). As 'discursive boundaries' or the rules and restrictions set by language and communication change, how people see themselves also changes (Britzman, 1992). Identity

viewed as a relative concept does not mean it is aimless or lacks purpose. Instead, it is grounded in a push and pull of social significance (Britzman, 1992). People grapple with understanding themselves, and we do not do so in isolation but with other people, all influenced by and contributing to culture. This view of identity focuses on how we adopt roles, connect, and justify how we act. Through this view of identity, we can see how identity produces a range of answers to normative assumptions (Britzman, 1992). These 'answers' are not fixed and contain tensions and contradictions embedded within the context they arise. Therefore, identity is dialogical, evolving, and shaped by its context (Britzman, 1992; Bakhtin, 1986). Bakhtin (1986) similarly poses "ideological becomings" as an incompleteness of identity; that identity is ever-evolving and continuously influenced by social and cultural contexts.

Britzman (1992) uses writings from Stuart Hall (1987) and Joan Nestle (1987) to explain how identities are constructed and understood in a post-structural framework, emphasizing the fluid nature of identity. Hall and Nestle's notion of identities, as Britzman (1992) describes them, are characterized "in relation to appearances, the fictions others create to make sense of their own, and the splits engendered by difference" (p. 27). Britzman (1992) explains that while these are fictions concerning appearances, they do not cover some pure essence or core self. However, beneath the appearance and fiction, other fictions are displaced by "material practices and structures" (p. 27).

Literature on identity, professional identity, and teacher professional identity are abundant. Much literature in teaching and teacher education stresses the importance of teacher identity (Beauchamp & Thomas, 2009; Beijaard et al., 2004; Olsen, 2010; El-Soussi, 2022). The conceptualization of teacher identity has many definitions and iterations based on the different literature and the context in which TI (teacher identity) is placed (Beijaard et al., 2004; El-Soussi, 2022). The roles of teachers and teacher identity (TI) are often defined straightforwardly, aligning with a technical-rational approach. However, Mockler (2011) explains these phenomena as more complex and nuanced. Such criticality highlights the political aspects of teacher professional identity (TPI). Teachers' identities are often perceived in diverse ways across discourses, and this becomes particularly important when conceptualizing increased digitalization and data-driven approaches to the teaching profession. In this section, I explore some conceptualizations of identity and subjectivity that have helped shape my conceptualization and application of these terms in this research.

Symbolic interactionists such as G.H. Mead and others (e.g. Blumer, 1969 & Goffman, 1959) broke from previous views of identity as fixed and stable. The present research follows suit in that the teacher's professional identity (TPI) is fluid. Some contemporary professional identity conceptualizations are based in four basic assumptions: (1) context impacts identity; identity is multifaceted and based on social, cultural, political and historical forces (Rodgers & Scott, 2008; Britzman, 1992); (2) relations and emotions are part of identity formation (Rodgers & Scott, 2008); (3) identity is unstable, fluid and multiple (Mockler, 2011; Rodgers & Scott, 2008) and (4) identity is constructed and reconstructed through narrative (Rodgers & Scott, 2008; Mockler, 2011; Connelly & Clandinin, 1999).

Some identity research stresses external and internal forces. For example, Rogers and Scott (2008) discuss the external as contexts and relationships and the internal as narratives and emotions that create meaning-making. Britzman (1992) avers external forces include contested space, steeped in normative assumptions, and vested in compliance and loyalty to what and how the space *is*. Though awareness and voice come from *internal* meaning-making, they are used to confront the *external* normative in contested spaces (Rodgers & Scott, 2008), thereby troubling the dichotomy of internal and external as these constructs are interrelated. Contested spaces have sets of norms that individuals are expected to uphold. A person unaware of these expectations is viable for diminished/ing agency (Rodgers & Scott, 2008). This means that when people do not know what is expected of them, they may struggle to navigate the environment they are in effectively, thereby limiting their ability to assert themselves and make informed decisions. Teachers' identity embodies their past and present stories (Clendenin & Huber, 2005); their relational and emotional narratives are tethered to political and historical contexts.

If these four assumptions and the internal/external conceptualizations are paramount for TI, then relations become also of utmost importance. Relating to others is a component theorized to be foundational for being – for becoming – or for identity formation. Relationality then should be further considered to help outline why such a concept is essential to the study of teacher identity in digitized and online educational settings, hoping to gain more perspective on how relationality within digitization, digitalization, and online spaces impacts a teacher's sense of their identity. "A teacher teaches who he is. In other words since a teacher teaches from herself, self-awareness is an ethical necessity. It is also the source of her power" (Rodgers & Scott, 2008, p.744).

James Gee (2001) describes *contextual* identity. Four interlocking concepts forge Gee's contextual identity, including (1) N-identity (nature), (2) I-identity (institutional), (3) D-identity (discourse), and (4) A-identity (affinity). N-identity refers to physical or perceived physical attributes. I-identity stems from institutional systems, e.g., "I work in a school"; "I work in corporate America." D-identity describes the parts of ourselves found through other's discourse or discussion of us – "They say I am a fashionably late person." A-identity pertains to the parts of oneself ascribed to a set of social/cultural practices – like being a sports fan. These four conceptualizations of contextual (or external) identity provide an 'interpretive system' for the awareness of and recognition of identity. "People can accept, contest, and negotiate identities in terms of whether they will be seen primarily (or in some foregrounded way) as N-, I-, D-, or A-identities. What is at issue, though, is always how and by whom a particular identity is to be *recognized*" (Gee, 2001, p. 109). Identity is, therefore, not only emotional, relational, and internal (Rodgers & Scott, 2008) but also political and historical.

Identity is also conceptualized using substantial and situational self (Nias, 1989; Foulkes, 1975; Mead, 1934). The substantial self, or *I,* is rooted in immediate familial culture. The *I* self is described as relatively unchangeable. The situational self, or *Me,* is more externally penetrable. The *I self* is the subject, and the Me self is the object (Rodgers & Scott, 2008).

Britzman (1992) charges teachers to become aware of and acknowledge the politics of their identity and the politics of identity generally. Acknowledging the political part of identity helps teachers find their agency and professional authority. "Embedded in these assumptions is an implicit charge: that teachers should work towards an awareness of their identity and the contexts, relationships, and emotions that shape them, and (re)claim the authority of their own voice" (Rodgers & Scott, 2008, p. 733). Belonging to a professional organization or community penetrates one's sense of self in multiple context-dependent ways. Commitment theory (Becker, 1960; Kanter, 1972; Skinner et al., 2021) postulates that people orient themselves to a community or culture by analyzing the costs/benefits of membership. People speculate on the relationships built within the community or culture and the alignment of the community/culture's moral purposes and beliefs with their own. When applied to teachers, teachers make decisions about their institutional affiliations based on the alignments between their moral and ethical values and the institution. Santoro (2018) describes teacher "demoralization" quite similarly, finding that "when pedagogical policies and school practices (such as high-stakes testing,

mandated curriculum, and merit pay for teachers) threaten the ideals and values, the moral center, teachers bring to their work" (p. 5) they experience demoralization in their practice. Blackmore (2020) asserts that since the 1990s, teacher identity has been reconstituted due to educational restructuring brought about by "increased accountability, surveillance, regulation and mandated policies" (p. 28). Such reconstitution limits teacher "professional autonomy and sense of self and agency" (Blackmore, 2020, p. 28).

Identity within educational contexts intertwines with conceptualizations of human subjectivity. Britzman (1992) highlights the importance of teacher engagement with the political parts of their identity and advocates for more understanding of it beyond personal narratives. This broader awareness extends to societal forces that shape individual subjectivities. Rodger and Scott (2008) highlight the call for educators to reflect on their multifaceted- contextualized professional lives, stressing the importance of the connection between personal beliefs, institutional affiliations, and socio-political aspects. Belonging to professional communities becomes a pivotal aspect of identity construction, as elucidated by commitment theory (Becker, 1960). Teachers navigate these affiliations and relations with educational institutions by evaluating their moral values and the values of the communities they serve. This is vital in preserving teachers' sense of morality and self when dealing with external /externalized pressures. The changing landscape of education, often based on neoliberal policy reform and within digitalization, created new and exciting challenges for teacher identity. This perennial shift in education is redefining the boundaries of professional practice and role and reshaping teachers' subjectivity.

Subjectivity

Subjectivity refers to

> an abstract or general principle that defies our separation into distinct selves and encourages us to imagine what or … understand why our interior lives inevitably seem to involve other people, either as object of need, desire, and interest or as necessary sharers of common experiences. In this way the subject is always linked to something outside of it - an idea or principle or society of other subjects. (Mansfield, 2000, p. 3)

The "subject" is not a stable fixed object but is constantly being created and recreated through interactions with the social and physical environments (Weiler, 1991). As such, we

occupy many subject positions (Bhattacharya, 2017), and our subject positions often conflict (Duarte, 2020). "Post-structural theories of subjectivity contend that there is no interiority or preexistence of the autonomous self" (Duarte, 2021, p. 3) and instead, a subject is always part of and imbued within social and cultural power structures and is constantly in the making (Duarte, 2021). As subjects are created from hegemonic cultural structures and always in the making, as a subject senses or experiences a dissonance between social expectations and "internally persuasive discourses," the subject might "recreate and/or subvert that power" (Duarte, 2021, p. 3). Subjectivity, therefore, is conceptualized as fluid and relational. Within the digitalization of education, teacher identity, subjectivity, and agency are both diminished and uniquely shaped by complex interactions with digital environments while raising questions about the democratic promise of digital education and its potential for teachers to cultivate participatory agency in support of their students. As some philosophical and educational scholars find, subjectivity is fundamentally relational and constantly in flux. It is molded from interactions within social and cultural environments and digital technologies, which create critical questions about agency and ethical responsibility.

Emmanuel Lévinas (whom I will discuss more in the next section on relational ethics) explained that freeing bodily sensations from being controlled by or confined by consciousness is essential in developing ethical subjectivities. This involves an awareness that centers on immediate, sensory experiences over abstract, cognitive judgments. When people allow themselves to fully feel and engage with their bodily sensations, rather than interpreting or categorizing them through rational thought, they can open themselves to a more genuine encounter with the Other. This cultivated awareness encourages people to experience the Other as a distinct being, creating empathy and ethical responsibility. This "domestication of consciousness," as Lévinas (1989) put it, is how rationalism often reduces the Other (or other people, nature, or world) to objects that can be known, controlled, or assimilated into one's worldview - and consciousness. The domestication process involves conceptualizing the Other in ways that take away or diminish their alterity (their unique independence, freedom, otherness). This domestication of consciousness leads to ethical issues whereby the Other becomes subordinate to the self through things like exploitation, objectification, and the simple act of ignoring the existence and needs of others. In response to this domestication of consciousness, Lévinas proposed an ethical encounter with the Other, whereby the Other is not reduced to

objects of knowledge or control. Instead, the subject holds a radical openness to the Other where alterity is seen and respected. Lévinas critiques the individualistic and isolated view of subjectivity and emphasizes the transcendent value of the Other, thereby emphasizing the relational aspect of subject formation and the importance of bodily experience (Lévinas, 1989). Without bodily sensation, Lévinas (1989) posits that a subject cannot have responsibility - sense their responsibility for the Other. The bodily sensation is necessary for the subjects to become ethical beings. Lévinas subjectivity is an embodied, ethical subjectivity.

Foucault (1977) furthers the post-structural discourse on subjectivities through his insights on power/knowledge, discourse, subject formation, and technologies of the self. I utilize Foucault's conceptualization in this study for those insights in the context of teacher subjectivity, and here, I will elaborate on my Foucauldian approach. Foucault elucidated that power works within a society, influencing and creating individual identities and institutions. One fulcrum tenet of Foucault's conceptualization is that individual people are not passive recipients of power but active in power construction. So, within an educational landscape, it is crucial to see how power manifests in relation to personal subjectivities. In the following quote, Foucault (1980) describes this process and his perspective on it, illuminating how the subject - or individual- is not a separate entity of power but complexly part of it as both its product and vehicle.

> The individual is not to be conceived as a sort of elementary nucleus… a multiple and inert material on which power comes to fasten or against which it happens to strike and, in doing so, subdues or crushes individuals. In fact, it is already one of the prime effects of power that certain bodies, certain gestures, certain discourses, and particular desires come to be identified and constituted as individuals. The individual, that is, is not the vis-a-vis of power; it is… one of its prime effects. The individual is an effect of power, and at the same time, or precisely to the extent to which it is that effect, it is the element of its articulation. The individual constituted by power is, at the same time, its vehicle. (Foucault, 1980, p. 98)

As Foucault understands it, the individual (and all the things we attribute to our individuality - or identity, like our specific body and ways we speak) is an effect of power that is not of our own creation but created for us. Therefore, we are not adversaries to power; we are the very substance of power and serve as a conduit through which it manifests (Mansfield, 2000). Foucault believes that the very idea that people wish to view themselves as individuals with

freedom and autonomy makes humans the perfect conduit for power because it allows power to conceal itself (Mansfield, 2000).

Foucault's view of power is that it is productive in shaping individual subjectivities within society but is also repressive. Power is present in all social relations through a diffused and decentralized manner, constructing and constraining subjectivities through disciplinary mechanisms and regimes of truth. Institutional practices and techniques regulate and control people's behavior and bodies. Some of these practices are surveillance, nominalizations, and situating hierarchy for observations to make people compliant subjects. Regimes of truth are the knowledge and discursive practices that society deems to be true and, therefore, give authority. Knowledge, for Foucault (1980), does not exist outside of the dynamics of power. Knowledge is not objective or on an island but intertwined with power relations. Knowledge is based on existing societal regimes of truth, which are those regimes that have been given authority. Therefore, Foucault's power/knowledge is how the entanglement of power and knowledge is phrased, how it is structured in individual views of the world, and how societies and institutions are organized and run.

Foucault contends that power operates through repressive and productive mechanisms that shape individual subjectivities within society. This conceptualization echoes the idea that identity is fluid rather than fixed and constructed within social and cultural structures and discourses rather than stand-alone (Britzman, 1992). The diffused and decentralized attribute of power (Foucault, 1977) is similar to the fluidity of identity, which is constantly in negotiation and evolving in changing discourses and social norms (Britzman, 1992).

Within the digitalization of education influenced by neoliberal policy, the intersection of power and identity is essential to contextualize. The integration of ICTs, IoE, and AI performs a disciplinary role by regulating and controlling both human behavior and perceptions. These technologies make surveillance more possible and contribute to creating normative assumptions and regimes of truth in educational settings. Knowledge is inseparable from the dynamics of power (Foucault, 1977), and in the presence of the digital, this is exemplified by how technological advancements transform the dissemination and validation of knowledge, and the self.

Discourse is also central to Foucault's view of shaping subjectivities. Discourses define what can be thought, said, and known within a historical social context. Discursive practices

position individuals as subjects internalizing dominant norms, values, and identities. These practices create subject positions signifying how people should feel, think, and act in society because people internalize the dominant ideas of the discursive practices. The "docile body" exemplifies how Foucault envisions the way disciplinary institutions such as, and for my purposes, schools regulate and produce compliant subjects (for my further purpose through prevailing and changing digitalization of education). Instilling and upholding docility is necessary for consistently extracting utility from the population. Individuals engage in self-surveillance and self-discipline by internalizing societal norms and subjecting themselves to regimes of control. These regimes of control, or technologies of the self, play a crucial role in governing conduct and shaping subjectivities.

Foucault's (1977) use of the "Panopticon" shows how surveillance can exert power over people by inducing self-regulation, normalization, and conformity. The constant threat of being surveilled makes people internalize social norms, embodying the technologies of self (Foucault, 1988). The constant threat can be from employers, peers, or through materials like cameras and digital tracking. People regulate and temper their behavior and response to others. Subjects do not do this simply in response to a fear of getting into trouble or being judged by others but in response to the embodiment of regimes of truth into their own ethical and moral systems of belief. Therefore, subjects become their own monitors, their own surveillance regulating their actions, thoughts, and feelings. Subject self-regulation, therefore, reflects that of societal disciplinary mechanisms. In my analysis, I use Foucault's visions to examine how the governing mechanisms of digitalization shape subjectivity. Through teacher responses, I explore how these mechanisms restrict and expand their sense of agency in evolving digitalized environments.

Agency

Agency can present an escape, a possibility to act in "subversion [and/or] acceptance of domination" (Duarte, 2020, p. 3). Theorists have criticized Foucault's lack of attention to agency. Judith Butler (1990) and Nancy Fraser (1985; 1997) are two such theorists. Agency, like subjectivity, is entwined with social and cultural power structures. Consciousness of our subjectivity can stimulate agency. Both subjectivity awareness and agency cultivate learning about how people act in and upon the world as people are simultaneously acted upon (Duarte, 2020).

Butler (1990) critiques Foucault's view of power as being too repressive and dismissive of subjects' agentic power. Butler's "performativity" in relation to gender identity is one such area where subjects are shown to have an active albeit performative role in creating and negotiating their identity formation and subjectivity. Butler (1990) claims the performative can be subversive to disciplinary mechanisms. Fraser (1985) critiques Foucault's understanding of power and subjectivity as it overlooked marginalized group's agency and transformative social action. Structural (and institutionalized) injustices and inequalities are overlooked in Foucault's view of power/knowledge, which obscure collective agency and the possibilities of social change (Fraser, 1997).

Fraser (2009) claims that people can act against and within existing power structures in order to create social change for equality and recognition. Fraser emphasizes the importance of collective action and dialectical understandings for challenging dominant and existing power structures in support of social justice. For Fraser, collective action can impact more change than individual agency because existing systemic and structural oppressions can limit individual action.

Biesta and Tedder (2007) describe agency as how agents act from within their environment. Their environment is a confluence of individual efforts, resources available, structural factors, and contexts in unique particular situations. Agency is a set of actions a person takes to produce effects. A person does not possess agency as a capacity, character trait, or property, but people 'do' agency (Biesta et al., 2015). Individuals enact agency when constructing knowledge, using metacognition and reflective practices enabled by self-control (Eteläpelto et al., 2014). Learning is, therefore, a part of the agentic process as learning takes place through individual action and social participation, which then reifies identities in social and cultural communities (Eteläpelto et al., 2014). Damsa et al. (2021) perception of agency incorporates three dimensions: 1) iterational – "manifested in the ability to recall, select, and capitalize on the existing body of knowledge and practices" 2) practical-evaluative – "momentary judgment of and decision-making in means and ends of action, which can involve maintaining the status-quo or changing/adjusting actions or relationships" and 3) projective – that is oriented "toward the future, not merely repeating past routines but reconsidering and reformulating plans, which enables transformation and alternative responses to problems" (p. 3).

Jürgen Habermas's theory of communicative action (1985a; 1985b) points to the import of language and communication in furthering the subject's agency and social change. Language allows and helps people to communicate, but it goes beyond and assists in subject formation within social worlds. Communicative action also highlights the importance of critical rationality and a communicative ideal. Critical rationality is the ability of people to reflect and have critical thought. Reflection and critical thought allow people to evaluate institutional and societal norms and practices and hold critical discussions to challenge social and structural inequalities. The communicative ideal holds that critical discussions are to be free, open, and honest - free from domination and fear. The idea is that people can come together to reach understanding through dialogue. Habermas (1985b) theorized that the world is sectioned into two interconnected spheres - the *Lebenswelt* and the *System*. These two interconnected spheres are connected by communicative action, which helps people avoid total colonization of the Lebenswelt by the System. The Lebenswelt comprises human everyday practices, our interactions, and discussions - what makes up how we live - our social realities, while the System is composed of institutions and structures like politics and bureaucracy controlled and operated by utilitarian logic and demands. Habermas, therefore, focuses on the importance of communicative action within human agency.

Agency is "always a dialogical process by and through which actors immersed in temporal passage engage with others within collectively organized contexts of action" (Emirbayer & Mische, 1998, p. 974). Agency presents within an individual and a social context (Collin et al., 2010; Paloniemi et al., 2012; Eteläpelto & Lahti, 2008). Agency is necessary for professionalization, professional development, professional identity formation, negotiation, as well as transformations within workplace structure and procedure (Eteläpelto, et al., 2014). Agency is embedded within resistance to occupational and structural power (Casey, 2006; Fenwick & Somerville, 2006). Some teachers work from places of fear, compliance, and pressures to conform (Duarte, 2021, p. 2), leading some teachers to "reject, negotiate, or reconfigure particular school and district policies with which they do not agree" (Duarte, 2021, p. 3, citing Buchanan, 2015).

Organizational and work transformations often occur when 'new' public management procedures are introduced, just as with educational reform. In recent history, educational reforms have pushed accountability. The measures taken to assure accountability often led to less

professional autonomy for individuals. Educational reform procedures are often implemented in a top-down movement whereby the individual worker/teacher is not consulted about the proposed or implemented reforms. Professional agency is exercised when workers and working communities "exert influence, make choices, and take stances on their work and/or professional identities" (Eteläpelto, et al., 2014, p. 658).

Teacher professional agency is presented not only through the adaption of new roles, content, and procedure but also through critique and resistance to maladjusted reform (e.g., Pyhältö et al., 2012; Vähäsantanen & Eteläpelto, 2009). Vähäsantanen and Eteläpelto's (2009) study found that when educational reform produced positive outcomes for participating teachers, their professional identities were strengthened. However, when reforms created dissonance between the teachers' values and the proposed changes, teachers often wanted to change their professional identity to match what was being asked of them. However, some teachers would not/could not adjust to the imposed changes. All teacher responses in the study showed that influences and impositions from reforms and social resources made available to teachers strongly relate to teacher emotion and experience (Vähäsantanen & Eteläpelto, 2011; Day & Kington, 2008; van Veen & Sleegers, 2009). Changes to teaching platforms and imposed technological use provide another layer of agency for teachers.

Digital agency (Passey et al., 2018) is made up of three parts: digital competence, digital confidence, and digital accountability. Digital competence encompasses traditional literacy, critical thinking, and numeracy. Digital confidence is based on the ability and skill to use various digital technologies. Digital accountability is located in the nexus of personal responsibility for the self and others through digital action, knowledge of ethical digital issues, ensuring digital security and privacy, and understanding the implications of our digital actions. Digital agency or DA encompasses principles of access and equity. DA advocates that within a continuously developing technological global society, individuals should be able to control, guide, and adapt to the quick and continuous societal changes through digital competence, confidence, and accountability (Passey et al., 2019, p. 426). DA espouses individual capacity for control over and adaptation for social change within the permeation of digital technologies. This individual capacity "provides the basis for individuals to enjoy citizenship through democratic choices in society" (Passey et al., 2019, p. 433).

With similarities and differences to DA, professional digital competence (PDC) "demands that teachers … not only adapt their practices to digitalization but design and enact learning environments and activities conducive to their students learning" (Breyik et al., 2019, p. 1). PDC, therefore, relates to transformative agency (Breyik et al, 2019). Transformative agency is "the agent's capacity of breaking away from the given frame of action and taking the initiative to transform it" (Breyik et al., 2019, p. 2). Transformative agency is as much about a collective as an individual. It involves a collective to seek and implement change as needed when situations involve conflict or contradictions (Breyik et al., 2019). Teacher training and professional development are often cited as a major need to facilitate digital competence and agency (Passey et al., 2019; Breyik et al., 2019; Gudmundsdottier & Hathaway, 2020; Toto & Limone, 2019).

Within digitized education reforms, agency is paramount to people as they navigate and negotiate their roles with evolving social and institutional structures. Teachers, for example, demonstrate agency in their practice through their adaptability, critique, and resistance to imposed and mandated reform. Digital agency is further part of this discussion as it highlights people's ability to engage in technological landscapes and transform them for social change and democratic participation. The discourse on agency continues to change. I am struck by the notion that agency is not a simple trait people possess - rather, it is in process, a process interwoven with social, cultural, and technological changes. These 'external' forces are part of something greater than an individual. While subjectivity, identity, and agency have been conceptualized as fluid and intertwined with power dynamics, there is a solid connection to relational ethics.

Relational ethics considers the relation, rather than the subject as central, stepping away from individualistic frameworks of morality. It brings an ethical framework to the discussion, highlighting that teachers' agency is fundamentally relational as they navigate their roles in relation to students, colleagues, and broader institutional contexts. This can further my conceptual understanding of ethical entanglements in social and digitalized contexts. Relational ethics considers the relation opposed to the subject as central, stepping away from individualistic frameworks of morality. In the next section, I explore relational ethics to provide literature for this study's analysis.

Relational Ethics

One of the largest follies in societies that claim to uphold democratic values yet fail to put democracy into practice is a lack of attention to the value of relationships (Simpson & Stack, 2010). The importance of relations has been researched in educational settings and found that good relations – positive connections made between teacher and student lead to more positive educative outcomes, including increased student effort (Lundberg & Schreiner, 2004), higher self-efficacy, and more confidence in students (Ryan et al., 1998), more academic achievement and heightened intellectual development (Pascarella & Terenzini, 2005), more active student participation (Poirier & Feldman, 2007; Trees & Jackson, 2007); more interest and motivation in students (Komarraju et al., 2007; Zepke et al, 2010), heightened student commitment (Strauss & Volkwein, 2004) and satisfaction (Calvo et al., 2010) and more emotional engagement (Hughes et al., 2008) and "deep-learning" (Trigwell, 2005). While these studies all found *good* outcomes from relations between teacher and student, the qualities of the relation that make better outcomes have been more complex to investigate. This section outlines the role relations play in educational contexts and broader ethical frameworks. I first explore educational relational dynamics and how connections/relations frame and transform outcomes. I highlight theorists critical to my study's analysis, such as Nel Noddings, bell hooks, Paulo Freire, and Emmanuel Lévinas. Within these contexts, this section also highlights the connection between relationality and democratic aims of educational pursuits.

Relations in Relational Ethics in Education

Teachers also find the relationship and positive relations important (Grieve, 2010; Giles, 2011; Kreiwaldt, 2015). How teachers feel about colleagues, students, and administration is often linked to their perception of their work. Teachers' emotions are "embedded in the conditions and interactions of their work" (Hargreaves, 2001, p. 1061). While Hargreaves emphasizes emotions, these feelings are tied to broader concepts like well-being, joy, and flourishing. Flourishing is not an emotion itself but is a state of well-being that includes positive emotions that improve mental health and foster a sense of belonging. This, in turn, molds how teachers experience their environment and interact with students. Hargreaves (2001) expresses: "the spatial and experiential patterns of closeness and/or distance in human interactions and relationships... help create, configure and color the feelings and emotions we experience about ourselves, our world,

and each other" (p. 1061). For Hargreaves there are five distinct "emotional geographies" including: sociocultural, moral, professional, political, and physical. Each of these five involves the closeness and/or distance between humans.

Learning and growth happen as a "by-product" of relations between people in specific contexts (Hinsdale, 2016). Education's core, or base point, is the relation between adult and child (Mollenhauer, 1983; Nohl, 1970). Education can only begin with a relationship. Teachers' careful responses and reactions to an individual child's experiences and subjectivity form the deep roots of pedagogical practice and education (Mollenhauer, 1983; Pestalozzi, 1807; Bollnow, 1960; van Manen, 1991; Lippitz, 1990). Saevi (2011) states that such pedagogical practices rest on the "asymmetric, tactful, and personal togetherness that is deeply grounded in the difference between the generations and the personal and cultural" (p. 458).

In the humanities and social sciences, conceptualization of relational ethics and relationality form divergent paths based on various aims. Hinsdale (2016) wrote specifically on relational pedagogy, while Todd (2003) wrote about the part *eros* plays in the ambiguity of communication. Slote (2009) explained that empathy-based pedagogy is rooted in care ethics. Broadly, Noddings (1984, 1992) theorized care ethics as a foundational framework for understanding human dynamics in education and care. Sosa-Provencio (2016) further developed care ethics to that of a Mexicana/Mestiza critical feminist ethic of care situated in social justice, intersectionality, and citizenship status. Lévinas (1981) dove into the responsibilities of language within ethical relationships and subjectivity. Willet (2012) critiqued contemporary autonomy through African American feminism and visionary pragmatism. Todd (2003) enriches this discussion by exploring how institutions often prioritize established norms, sometimes at the expense of understanding the more complex dynamics of relationships. Todd (2003) finds that most institutions define relations and relationality through specific roles people take on and ignore the qualities of the relations created. I take this to mean that institutions focus primarily on defining relations and relationality based on individuals' roles rather than considering the inherent qualities or characteristics of the relationships. Institutions might prioritize formal structures and positions over the dynamics of individual connections. This can lead to overlooking qualities of relations, such as empathy and trust, or even "pedagogical hesitation" (Hinsdale, 2016; Biesta, 2005, 2012). This makes the focus on the prescribed norms of the

community and how one fulfills those norms and pushes the affect and messiness of the relations to the peripheral.

Educational issues of social justice and oppression can be addressed by teachers engaging in pedagogical hesitation (Hinsdale, 2016; Biesta, 2005; 2012) and reflection (steps to transform the world) on power imbalances and a teacher's process of "coming into presence" (Biesta, 2005). Biesta's concept of "coming into presence" is about a person demonstrating their being in response to others, similar to Lévinas' (1981) ethics of the other. This process is inherently social, and one's subjectivity arises through interactions with others who are different, which is akin to Dewey's idea of associated living. Pedagogical hesitation in this context is not just a reflective tool; it is also a relational practice. It allows teachers to open themselves to the unpredictable and complex nature of students, engaging them as full, unique individuals rather than reducing them to fixed identities. Pedagogical "hesitation" invites teachers (or people in power/authority positions) to remind themselves to acknowledge what is unknown and unknowable about their students while simultaneously considering their students' alterity (Hinsdale, 2016). This moment of hesitation creates space for relationality to emerge. By taking this moment, teachers resist the impulse to assume or categorize, allowing them to remain open to deeper discovery and engagement with the students' complexities. By doing so, hesitation fosters ethical and reciprocal interactions, ensuring that teachers do not prematurely close off opportunities for relational learning.

Through this vision, Hinsdale highlights an aspect of relational ethics, that people as social beings often seek common ground or similarities with those they come into contact with; however, once someone believes that they fully understand another's identity and learning style/needs (including their goals), they "have already foreclosed opportunities for discovery and wonder as well as for the important, but sometimes difficult, learning that takes place across differences in social/cultural position" (Hinsdale, 2016, p. 10). This idea of foreclosing discovery aligns with the notion that pedagogical hesitation creates a space for relationality, where teachers resist the temptation to reduce their students to fixed identities or assumptions. By hesitating, teachers allow themselves to maintain openness to the possibility of discovering their students' complexities and needs in ways that go beyond superficial or static understanding. In this sense, hesitation is a relational and ethical practice that opens the teacher up to the full humanity of the student, inviting a deeper engagement.

Biesta (2012) describes two types of hesitation: practical and theoretical. Practical

hesitation is when teachers hold back instinctively or avoid taking action because they do not know or become uncomfortable with what might happen. This hesitation allows for educational events or outcomes that teachers cannot directly control. Practical hesitation has relational implications. By withholding immediate judgement or action, teachers can create a space where they listen more deeply to their students, respond more ethically and engage with the student as a full person. Theoretical hesitation is when teachers recognize and reflect on parts of the educational process and their practices that are not easy to understand through instinctive interaction. It is about awareness of complexities and the layers of education that go beyond surface-level interpretations. This hesitation concerns that essential parts of teaching and learning can be overlooked or not fully understood through simplistic explanations. Relationality is affective and emotional. It is also vital to examine how theorists have conceptualized pedagogy, education, and teaching and learning with relational democratic aims.

Relational Democratic Education

> A theory of education should be a theory about the interaction between the teacher and the student. A theory of education is, in other words, a theory about the educational relationship. It is not about the 'constituents' of the relationship (i.e., the teacher and the learner) but about the 'relationality of the relationship.' (Biesta, 2004, p. 13)

Relational ethics focuses on the relationship as the moral agent. The relationship creates the self, subjectivity, identity, and agency. The moral agent is, therefore, not autonomous, solely rational, self-encompassing, or individualistic (Willet, 2012). The moral agent is in a process of becoming, in relation, while full of affect, emotion, and vulnerability. Our relationships mold our past, present, and future selves. People often use the word 'relationship' to describe the closeness of two or more nouns – less often, we use it to distinguish between two or more nouns. Relational ethics is less concerned with judging or assigning a moral value to the relationship – such as determining whether it is ‘good’ or ‘bad’ – and more focused on understanding how the relationship itself shapes the identities, experiences, and moral agency of those involved. Relationality focuses on the fundamental question of "what it means to be a human being and how we live with others who share our world" (Shapiro, 2010, p. 16). Relational ethics explores the ethical dimensions of those interconnections – the ways in which relationships shape our moral and emotional selves.

Agency and identity are also part of relationality as they mediate relations (Wubbels et

al., 2012; Kriewaldt, 2015). Biesta's (2005) 'coming into presence' is a form of 'enunciative agency' whereby agency is not reliant on the autonomous, individual self. The postmodern 'enunciative agency' sets both teacher and student in a space to show themselves to the other while educating themselves and the other. This is a mutual space where both teacher and student sit in a reciprocal space and "can both 'come into presence' as unique individuals'" (Hinsdale, 2016, p. 7). The conceptual area of identity and agency connects to the practical area of school cultures and professional relations. This connection shows the particular interaction that impacts teacher identity.

When a school is organized to be committed to support, care, and trust as foundational for professional relations, then "teachers' commitment and effectiveness, built through collective capacity, impacts positively on professional identity" (Skinner et al., 2021, p. 25) and helps teachers overcome challenges (Day & Gu, 2014; Skinner et al., 2021). Since identity is relational, identity is always in process - or becoming (Biesta, 2005; Beijaard et al., 2004); the school's commitment to relationality must be constant to embed in the ongoing becoming of professional teacher identity.

Human relationality is not only about the 'roles' we fulfill but even more so about the qualities of the relations. As the impact of education can cause degradation, elevation, or liminality, education is, therefore, a moral and relational pursuit (Jarvis,1995). The relationship between the student and teacher should be centered on educational practices, and the nature of said relation needs to be deeply considered to gather meaning for teaching and learning (Hinsdale, 2016). This relationship need not be unequal, but we must recognize the difference in power; however much we are encouraged to ignore it, a teacher brings life experiences and knowledge to a communal space (Foucault, 1982).

Pedagogy is about the relationships between those involved and the interrelatedness of teaching and learning; pedagogy is not just a process of education (Lingard et al., 2003; Mulcahy, 2006; McFadden & Munns, 2002; Kreiwaldt, 2015). Students and teachers do not just prefer a good relationship, but learning is relational (McFadden & Munns, 2002). Care is fundamental to human thriving and is present through relations (Kriewaldt, 2015). Saevi (2011) suggests that pedagogy (phenomenological and existential) is a question of "who and how one is in relation to children" (p. 460). When contemplating relationality and pedagogy, Saevi (2011) finds that the cornerstone is a teacher's emotional and physical presence within the relationship to a particular student. "Seeing" is vital to pedagogy, as seeing is foundational in all actions;

"seeing" is not formulating a moral judgment but enforces relational understanding and interpretation (Saevi, 2011, p. 475). Pedagogy rests on an ethical foundation, assuming that education is an intentional relational practice.

If education is relational, it is also a moral endeavor which has connections to sociocultural theory as it emphasizes the importance of social interactions and cultural context in learning. According to this view, education is not just an individual cognitive process but a shared, collective one. There is a difference between learning and development (Vygotsky, 1978). Interactions are vital when learning. Through interactions with others of other knowledge or "more" knowledge, teaching leads to mental development (Vygotsky, 1978). What this means and why it is striking for sociocultural theory is that learning happens in relations and is more than a sole cognitive activity. Learning is a social experience in a particular context – a specific time, place, and culture – including the context's material and conceptual aspects. Learning is the result of participation with others, which makes education not only a moral endeavor but a democratic one. Many theorists have viewed education as a social and cultural activity (e.g., Addams, Aristotle, Dewey, Fanon, Freire, Gadamer, Heidegger, Ladson-Billings, Lévinas, Noddings, hooks). For many, this relation between two or more subjectivities is fundamental to learning and education.

Relationality and democracy are interconnected. In education, relationality is the foundation of democratic aims for teaching and learning. This relationality is not a simple pedagogical practice but foundational to the learning process. Learning occurs through interactions within specific contexts involving cognitive, social, and cultural dynamics (Hargreaves, 2001; Mollenhauer, 1983; Vygotsky, 1978; Dewey, 1916/1930). Pillars of democracy include inclusivity, participation, and diversity of people and perspectives, which promotes individual agency in a collective. Schools reflect and influence society. For schools to be democratic, relationality must be prioritized so that students and staff feel agentic, valued, and respected to foster social responsibility, engagement, and empathy. These are essential for navigating social issues and contributing to the common good (Westheimer & Kahne, 2004).

> Democracy is not only a form of government but primarily a mode of associated living, of conjoint communicated experience. The extension in space of the number of individuals who participate in an interest so that each has to refer his own action to that of others and to consider the action of others to give point and direction to his own, is equivalent to the breaking down of those barriers of class, race, and national territory

which kept men from perceiving the full import of their activity. (Dewey, 1930, p. 101)

John Dewey's concept of democracy as a "mode of associated living" underscores the significance of a relational ethic. Democracy should be a part of all aspects of life, beyond governmental and educational realms, encompassing social institutions as the political, economic, educational, scientific, artistic, religious, and familial domains. Dewey emphasizes the importance of engagement in activities, discussion, and/or creative endeavors. Through such engagement, people will interact and gain a deeper understanding of themselves within the social context. Dewey's pragmatic approach eschews a rigid blueprint for achieving democratic ideals; instead, he advocates for a continuous effort and collaboration with individuals from diverse backgrounds. Therefore, democracy is not merely an end goal but an ongoing process and means of social engagement. Dewey's democracy is intricately woven into relational ethics because our identity and subjectivity emerge from our interactions. He asserts that the very essence of language, being the intermediate of mutual understanding, illustrates its reliance on shared experiences - a relation - for meaning to emerge. Within social interpretations of language, meaning is derived from our shared interactions, which allows people to see themselves as integral participants in shared activities (Dewey, 1930). People experience challenges and successes of their social group as their own, which creates a sense of collective responsibility and solidarity (Dewey, 1930).

Education's core is the transmission of knowledge and the interconnected web of relations between educational entities/subjects. As Biesta (2004) points out, education is fundamentally about the rationality of the educational relationship, which frames knowledge creation and the formation of identity, subjectivity, and agency. This relationality extends well beyond people's interactions - it encompasses how people inter-exist with each other and our world (Shapiro, 2010). Within a relational framework, ethics is central to highlighting the moral significance of educational relations (Willet, 2012). Pedagogy is more than just imparting knowledge; it is a profoundly ethical endeavor rooted in intentional relationality (Saevi, 2011; Jarvis, 1995). Care and recognition of power dynamics are also central to the ethical pursuit of education (Kriewaldt, 2015; Foucault, 1982). Education is, therefore, a social and cultural pursuit as well as a cognitive one. Learning occurs through relations and interactions within specific contexts, shaping both subject (individual) development and collective understanding (Vygotsky, 1978; Dewey, 1930). Relationality and democracy are interwoven with relational ethics, forming the foundation of democratic aims for teaching and learning (Hargreaves, 2001; Westheimer &

Kahne, 2004). As Dewey (1930) posits, democracy is not only a form of governance but a mode of associated living that permeates all aspects of society and requires continuous engagement and collaboration.

From the literature in this subsection, relational democratic education is an approach that emphasizes the importance of the interactions and relationships between people and educational processes. It includes concepts of educational relationships (Biesta, 2004), relational ethics (Metz & Miller, 2016), agency and identity (Bista, 2004; Hinsdale, 2016), and democratic aims and the common good (Dewey, 1930; Westheimer & Kahne, 2004).

Key Relational Ethic Concepts

Relational ethics has a relational conception of morality, whereas ethical traditions grounded in androcentrism and Eurocentrism have primarily been concerned with individualism (Metz & Miller, 2016; Harding, 1987). Ethical traditions that have come from androcentric and Eurocentric perspectives often maintain that freedom or happiness are the most important values, but more relational approaches to ethics place the paramount importance on care, community, and/or harmony (Metz & Miller, 2016; Harding, 1987). There have been exceptions to this view of ethics, including some conceptualizations from Karl Marx, Baruch Spinoza, and Emmanuel Lévinas (whom I will discuss later). *Relationalism*, as Metz and Miller (2016) term the genealogy of relational ethics, claims that moral status is not only determined by individual qualities of entities or the role they play in society - or any system. What morally matters in relationalism is the relation or interaction between entities. The interaction or relationship creates the quality that warrants moral consideration and/or value (Metz & Miller, 2016). Relational theory does not only apply moral consideration to groups or individuals as members of groups; something can be morally relevant even when it is not part of a group or considered in relation to group memberships. Therefore, relational theories look beyond the intrinsic properties of an entity (Metz & Miller, 2016). Entities warrant moral worth; value depends on their relations and how they affect others. This is the context in which relational ethics is situated. Three prominent instances of relationalism in normative philosophical discourse are integral parts of relational ethics: Confucianism, the African tradition, and feminist and care traditions (Metz & Miller, 2016). However, rather than outlining these three traditions, I highlight specific approaches from some key theorists within relationalism, such as Nel Noddings (care ethics), bell hooks (feminist pedagogy), Paulo Freire (critical pedagogy), and Emmanuel Lévinas (ethics of the Other) as I

pulled these certain approaches into my analysis. I outline these approaches in the following paragraphs, beginning with Lévinas.

Emmanuel Lévinas was a French philosopher (1906-1995) who primarily focused on ethics as a foundational part of human existence. I found four aspects of his work that resonated with this project:

1. The primacy of the Other, which places importance on the Other as foundational to ethical relationships and highlights their role in human existence.
2. Ethics is a "first philosophy," the idea that ethics precedes ontology and epistemology, making ethical encounters with the Other central to peoples' understanding of being.
3. The centrality of responsibility and vulnerability is a notion that our responsibility toward the Other is infinite and unconditional, rooted in recognition of their vulnerability.
4. Bodily sensation and proximity is a belief that ethics is embodied in the sense that immediate sensitivity to the Other's needs arises from physical and relational proximity.

The Cartesian model places the subject as the center, as autonomous and independent. Lévinas, however, decenters the subject and defines the self as in relation to an *absolute other*. Lévinas (1989) problematizes Greek philosophy, which centers on ontology, by saying that it has the same problem as rationalism: they both have a manipulative metaphysical desire to find the essence of human beings through ontological discourse. Lévinas' ethics (1989) is anti-foundationalist, meaning that he rejects the idea that ethics is based on a foundational grounding that can/tries to provide a universal or absolute justification for ethical norms and values. He differentiates his ethics from moral norms and feels that ethics is not reducible to a moral doctrine. Although a rational construction of ethics can help people make a "right," "good," or "safe" ethical judgment when dealing with moral issues or solving moral dilemmas, it skews the meaning of ethics. For Lévinas, such a rational ethic is only egoist. Such rational ethics can only encourage people to attend to their own betterment and benefit and prioritize themselves when making moral decisions regardless of their responsibility to the Other (Lévinas, 1989). The rational subject, driven by a metaphysical desire, reduces the embodied subject to a disembodied subject (Lévinas, 1989). A rational subject, perceived as such, represses all bodily communication, which prevents the creation of an ethical and embodied relationship.

In *Totality and Infinity* and *Otherwise than Being or Beyond Essence,* Lévinas provides an ethical framework that asserts the primacy of the other, responsibility and vulnerability, and

ethics as the first philosophy. Ethics as a first philosophy precedes ontology and epistemology, as the encounter with the Other is where and when the self becomes cognizant of its ethical obligation. For Lévinas, ethics is not a theory but instead a lived experience. Ethics, therefore, disrupts the self's complacency and unmasks the perpetual demand of the Other (Lévinas, 1981). Lévinas (1989) acknowledges a cognitive dimension in bodily communication between a subject and another, but he incorporates the cognitive dimension in his ethics. Ethics is about a fundamental relationship between the subject and the Other. Bodily sensation mediates this fundamental relation (Lévinas, 1989). Such ethics emphasizes that the Other and the body are the fundamental state of being ethical.

Rather than a rational capacity, the bodily sensation stimulates the subject's sense of responsibility toward the Other. The immediate sensitivity of a person makes them able to feel the pain and suffering of others, which then can prompt their moral feelings toward Others. In Lévinas' philosophy, the bodily experience of the Other is interwoven with the subjects. This embodied relationship is what Lévinas (1989) calls proximity. Within proximity, a relationship between a subject and the Other is asymmetrical, which means that the Other is superior to the subject (Lévinas, 1989). This relation can never be balanced by what the subject does. This asymmetrical relation presumes an infinite ethical responsibility given to the subject. The Other is in a transcendental status that the subject can never grasp conceptually. The subject is passive in this asymmetrical relationship. By passivity, Lévinas means that the subject has no space to make any rational deliberation before the other's irresistible ethical command. As Daivs (1996) suggests, Lévinas means that the subject is responsible for the Other because the subject's existence as an individual subject is wholly bound to the relationship to the Other. Lévinas also highlights that there is always a "third party" in the proximity of the Other because the Other is more than just my Other. I am, therefore, Other for another, and each Other has various Others - which is the third party. However, this asymmetry does not necessarily exclude democratic principles. Democratic ethics typically understood as grounded in reciprocity and equality may initially seem to conflict with Lévinas view of the asymmetrical nature of the subject-Other relationship. In a traditional democratic framework, equality and mutual recognition are central. Yet, Lévinas challenges this by framing the responsibility to the Other as infinite, unreciprocated, and unequal. This tension between reciprocity and asymmetry invites a rethinking of democracy itself – not as just a reciprocal exchange but as a commitment to the ethical responsibility that transcends balance.

Within democratic frames, Lévinasian ethics suggests that the true equality involves not a simple balance of give and take, but an infinite responsibility tot the Other. The subject’s duty to the Other even in its asymmetry, can be seen as a foundation to democratic living, which requires recognition of the Other’s dignity without expectation of reciprocation. This shift in perspective can foster an understanding of relational ethics as democratic in a deeper sense, where justice and responsibility toward the Other are core values, not mutuality. Thus, while relational ethics may involve an asymmetrical responsibility, it can still be compatible with democratic values when seen as an ongoing ethical commitment tot the dignity of others regardless of reciprocity. The democratic ideal in this sense, is less about equal exchange and more about ensuring that the subject’s relationship to the Other is one of infinite responsibility, grounded in the recognition and respect for the Other’s humanity.

The notion of proximity in ethics differentiates from traditional rational ethics. Lévinas' ethics, as already stated, are not a set of norms but an embodied relationship between the subject and the Other, rooted in responsibility. Critchley (2002) describes Lévinas' ethics as being "lived in the sensibility of an embodied exposure to the other," emphasizing the embodied nature and the criticality of bodily sensations in ethical action and decision-making. A rational ethic relies on detached deliberation, where a subject can keep a safe distance from the Other and disengage with communication and contact. However, Lévinasian ethics demands a direct engagement with the Other, where the subject's ethical response is motivated not by conceptualization or reason but by the embodied sensitivity toward the Other's needs and desires. This ethical approach prioritizes ethical risk-taking and stretches beyond the self-centered subject into an ethical being.

The absolute other's alterity is irreducible; therefore, the *relation* commits to difference. The absolute other, therefore, cannot be reduced to sameness and will not be fully understood or comprehended and, therefore, never possessed by another (Lévinas, 1981). A subject's alterity is not interchangeable with each other. My alterity is not interchangeable with yours. Lévinas' ethical relationship begins when the 'self' becomes aware of the absolute other and is honored and humbled by the other's irreducible alterity. Lévinas' "face-to-face" interaction disrupts the self's autonomy and sheds light on the radical alterity of the Other. Within this interaction or encounter, the Other's face demands more than comprehension or utility, making the self engage in an ethical response. Unless people can understand humans as sensual beings who are driven by enjoyment, pleasure, and desire, people will never come to understand what creates the very being of the subject. Suppose people fail to recognize or take into account the ethical potential of

non-conceptualized bodily sensations such as feelings like pain, fear, and suffering. In that case, we will never become ethical subjects who can then take responsibility for the Other (Lévinas, 1989). Only non-conceptualized sensations can bring about a subject's awareness of the suffering of the Other.

Responsibility and vulnerability are, therefore, important to Lévinasian ethics. Responsibility is not a choice or obligation, but it is the spontaneous response created by the face of the Other. Responsibility is unconditional and infinite. Responsibility comes from the asymmetrical relationship between the self and the Other. Within the relationship, the self is made to answer the call of the Other's vulnerability and/or suffering. What is important for the power dynamic in the ethical relation between teacher and student is that although the self cannot necessarily possess another's alterity, the self can diminish another's alterity. A person cannot possess another's differences but can dismiss/deny/devalue another's differences.

To simplify and clarify my interpretation of Lévinas' ethics: 1) ethics is about responsibility toward the Other, 2) a person's ethical act/decision-making is not guided by reasoning but instead by bodily sensation, and as such, Lévinas' ethics is embodied as it treats the body as an essential ethical condition, 3) ethical subjects are not active rational subjects, but rather the subject is a passive embodied subject whose ethical act is passively motivated by the urging of the other, and as a result, ethics for the subject is a fine risk – a nuanced and uncertain engagement with responsibility and communication.

> Justice is impossible without the one that renders it finding himself in proximity. This function is not limited to the 'function of judgment,' subsuming particular cases under a general rule. The judge is not outside the conflict, but the law is in proximity. Justice, society, the state, and its institutions, exchanges, and work are comprehensible out of proximity. This means that nothing is outside the control of the responsibility of the other for the other. (Lévinas, 1989, p. 159)

With this sentiment, Lévinas addresses his view that true respect for others' rights requires a direct engagement with the Other. On the other hand, if people focus on freedom without considering others, fundamental human rights are subverted.

Lévinas' work connects to relational ethics and relational democratic education in three main ways. First, there is a focus on the ethical demand of the Other, which signifies the moral significance of educational relationships. In such a context, teachers and students constantly

engage in a mutual, ethical relationship where each subject's needs and vulnerabilities are seen and addressed. Secondly, the notion of the self being created through relations with the Other is similar to the idea that identity and agency are created through educational (and none) interactions. Third, there is a critique of autonomy and rationality in Lévinas' work, where his ethics support educational values as embodied and relational instead of abstract and detached. Therefore, Lévinas upholds relational ethics and views the ethical importance of the Other and the embodied nature of ethical responsibility as foundational for education.

Hinsdale (2016) and Todd (2003) offer readings of Lévinas' ethics for relational ethics and relationality. When contemplating Lévinasian philosophy, Hinsdale (2016) proposes that "our responsibility for the Other compels our ethical response, and this response constitutes us as subjects" (Hinsdale, 2026, p. 6). Hinsdale (2016) continues that human existence is not autonomous; we are not "sovereign subjects" (p. 6) who are simply one side of a relation. Peoples' subjectivities are rooted and sprout from within relations in the process of relating. The "between-ness" nature of subjectivity gives rise to the term intersubjectivity (Hinsdale, 2016, p. 6). Lévinasian ethics rose from the moment to moment and face-to-face interaction with the other; through each relation, our *self* repeatedly comes into being. In this way, ethics precede the ontological; peoples' ethical responsiveness to others brings selves into the being, and "we become who we are in the moment of relating " (Hinsdale, 2016, p. 6). Within relational pedagogy, Hinsdale finds alterity vitally important. Alterity does not necessarily mean difference; it is what is between one and another. Hinsdale (2016) postulates that the essential tenets of relational pedagogy include: 1) the teacher as learner, 2) students and teachers are open to the 'unknowableness' of others, 3) power dynamics are asymmetrical, 4) exclusionary histories and marginalizations trouble cultivation of relationships, and 5) self-reflection precedes the possibility of consequential educational relations. Todd's (2003) focus on Lévinasian ethics lies in the fine risk of responsibility and relating. By *fine risk,* Todd means undertaking uncertainty in communication and gratitude for the sacrifice of communication. Todd (2003) infers that Lévinas' ethical conceptualization of open communication is sacrificial because opening the self to and for others is a gesture of generosity.

Humans are not naturally alone; when they detach from others, their first inclination is to "reestablish their relatedness" and connection to others (Noddings, 1984, p. 51). Nel Noddings, an American educator and philosopher in education, is known for her ethics of care. Noddings

work focuses on the importance of caring educational relationships that center on the moral and ethical parts of teaching and learning. Ethics of care emphasizes the moral significance of relationships and how vital caring is to ethical decision-making. She thinks that moral action comes from caring for others. Her relational approach to education was well-articulated in *Caring: A Feminine Approach to Ethics and Moral Education* (1984). In this text, she explores the roles of the "one-caring" and the "one cared-for," which shows the reciprocal nature of care and the importance of empathy and attentiveness in educational pursuits. Noddings challenges the notion that moral decisions are solely rule-based. Instead, she posits that there needs to be a more nuanced understanding of moral decision-making, one that considers the perspectives of both the caregivers (one caring) and the recipient of the care (one cared-for). Noddings (1984) cautions against reducing care to abstract problem-solving, suggesting that doing so will make people focus on the perceived issue or problem and ignore the human involved. Nodding's conceptualization of care ethics evolved in her later work, *The Challenge to Care in Schools (1992)*, to extend her views on how care should be enacted. Noddings urges educators to restructure goals and objectives rather than solely focusing on individual change. She calls for a radical transformation in schools - envisioning schools as societal change agents. Noddings work parallels ideals of relational democratic education because of its emphasis on the relationship as central to the educational process. Her focus on reciprocal caring relationships supports democratic aims and means in education, where mutual respect, empathy, and attention to relations are the core of learning.

bell hooks is an American feminist theorist and scholar whose work is in cultural critiques of education, race, gender, and media. Her feminist pedagogy has been particularly influential in my learning for this project. In *Teaching to Transgress: Education as the Practice of Freedom* (1994), hooks laid out her feminist pedagogy. Her theory highlights the importance of dialogue, community, and transformative learning. The pedagogy also supports creating spaces that allow teachers and students to engage in open and meaningful discussions about power, oppression, and liberation. hooks' (2014) feminist pedagogy is relational because it fosters authentic connections and relationships through dialogue and engagement, interconnectedness, community building, and transformative learning. hooks contents that students and educators should engage in open dialogue with meaningful interactions within spaces designed to foster such engagement.

hooks elucidates the interconnection of all forms of oppression - an intersectionality approach. Feminist pedagogy notes that individual experiences are impacted/created by the intersection of social structures and forces. Feminist pedagogy, therefore, expects students and teachers to engage and analyze the intersections and connections critically. hooks contends that feminist pedagogy helps people learn how power systems and hierarchy operate and how they are connected to each other and to individuals. hooks also places great importance on creating supportive and inclusive learning communities where trust and respect are upheld and valued. Community building facilitates learning and personal growth. Community building also fosters belonging and a sense of solidarity. hooks' pedagogy encourages people to have these communities - these relational spaces - to teach people to feel empowered to learn about and challenge oppressive, dominant discourses and structures (hooks, 2014). hooks calls for transformative learning, a view of education that imparts knowledge and empowers people to create needed change in their contexts and communities. Feminist pedagogy is compatible with a relational ethic as it centers on the complexity of human-system experiences to promote justice and liberation (hooks, 2014).

> The more alienated people are, the easier it is to divide them and keep them divided. Focalized forms of action, by intensifying the focalized way of life of the oppressed…hamper the oppressed from the problems of oppressed women and men in other areas. (Freire, 2004, p. 142)

Freire contends that by isolating people, it becomes easier to divide and oppress and that concentrated actions can narrow the focus of an oppressed group, which can prevent them from being able to see broader issues that impact other oppressed people and perhaps even themselves. Paulo Freire was a Brazilian educator and philosopher known for his theorizing on critical pedagogy. For this project, Freire's three most prominent ideas were critical pedagogy, critical consciousness, and the dialogical method. Freire's (2004) critical pedagogy offers an educational approach that seeks to empower oppressed people by engaging them in critical reflection and dialogue. Freire sees traditional education as oppressive because it makes students passive learners who are given information or knowledge without participating in learning. Therefore, they are not participants in their liberation. Freire's pedagogy aims for a critical consciousness or "conscientization," which encourages learners to think critically and critically analyze their social context to find how and where oppression is present and obvious or present and hidden. This pedagogy calls for transformative action by focusing on dialogue, collaboration, and "praxis"

(reflection and then action). Freire focuses on the human dignity of each individual and calls for dialogical collaborations between educators and learners. By depending on dialogue and critical consciousness, Freire's educational praxis encourages acknowledging the responsibilities people have for each other - to see their humanity - and working together to foster social transformation for social justice. Freire's critical pedagogy has ties to relational democratic education, as his emphasis on dialogue, critical consciousness, and participatory learning supports democratic approaches to education, which are collaborative processes to empower people through relations.

Relational ethics offers a framework for navigating the complexity of human (and non-human) interaction and moral decision-making. By emphasizing the interconnections and interdependence of people/entities, relational ethics calls us to move beyond individualism and self-interest and to recognize our ethical and moral responsibilities. Whether we use Levinian philosophy, an educational praxis, a feminist pedagogy, or an ethics of care, relational ethics accentuate the moral imperative of the relationship. Nel Noddings' care ethics, bell hooks' feminist pedagogy, Palulo Freire's critical pedagogy, and Emmanuel Lévinas' ethics of the other offer distinct perspectives that have enriched my learning of relationalism in normative philosophical discourse; because of this, these perspectives will be utilized in my analysis chapters. Through new technologies and digitalization, human connection in an incredibly interconnected world can be navigated using relational ethics to work toward a more inclusive, critical, compassionate, and ethical space. Dewey (1916;1930) believed that education should prepare people for democratic participation and that social interactions were a pillar of democratic educational aims. Dewey's democracy and relational ethics both advocate for inclusive, relationally ethical spaces where meaningful interactions between people take place. Relational ethics, therefore, is the foundation of democracy in this sense.

Conclusion

The impact of technological advancements on the ever-changing landscape of education in the United States is undeniable. Over the past decades, technology has reshaped and restructured how knowledge is created, disseminated, and accessed. It has also impacted the way

knowledge is utilized within educational institutions. This shift has created more interest, both academic and practical, in the relationship between technology, education, and human subjectivity.

This chapter aimed to comprehensively explore three central themes that intersect within contemporary educational discourse: a) technology, digitalization, and datafication; b) subjectivity, identity, and agency; and c) relational ethics. These themes provide nuanced and varied lenses through which I have examined complex dynamics that make up educational practices and settings. In the first section of this chapter, I explored how the digitalization of education has sparked a paradigm shift in teaching and learning. The advancements in ICTs have blurred traditional boundaries of time and space, which have opened up new paths for education through online platforms and digital environments. However, along with this rapidly evolving digitalization, which offers so much, questions emerge about its efficacy, fairness, and ethical implications. Issues of data privacy, the commodification and marketization of education, and algorithmic discrimination are a few areas that have been and are in continued need of critical reflection. This section also considers the intersection of neoliberal policies with the implementation of digital educational technologies that reinforce complex socio-political dimensions.

Secondly, this chapter explored identity, subjectivity, and agency with the digitalization of education as its backdrop. Essential to this section was addressing and exploring how digitalization can both diminish and cultivate teacher identity and agency and create an interesting paradox. While digital tools support various teaching methods and streamline many processes, challenges are also present that have implications for teaching practices and democratic educational aims. This section, therefore, highlighted conceptualizations of identity, including teacher professional identity and political identity awareness, situating them within broader frames of power/knowledge dynamics and communicative action theory. Through these explorations, this section attempted to illuminate the nuances between the conceptualization of teacher subjectivity in the digitalized educational landscape.

In the final part of the chapter, I explored relational ethics, as it can be used to examine educational contexts critically. Relational ethics explores how educational spaces impact teachers' lives by conceptualizing relations as moral agents. This section offered insights from theorists such as Nel Noddings, bell hooks, Paulo Freire, and Emmanuel Lévinas to highlight the

ethical imperatives necessary in educational spaces, digital and not. This chapter, therefore, aimed to clarify the complexity between democratic educational aims and relational ethics as the bedrock of research and educational practices.

This chapter moved between interconnected spaces of technology, identity, and ethics within education. These themes illuminate the complicated yet real implications of the digitalization of education on teacher practice and subjectivity. This chapter, therefore, aims to contribute to an ongoing discourse about changing educational practices and ethics, which ultimately strive to support democratic educational aims and practices.

Chapter III
Methodology

Drawing from educational literature and philosophical discourse, my research navigates the intersection of relational ethics, teacher agency, subjectivity, democratic educational spaces, and digital technologies. I have structured my philosophical foundations, methodology, and theoretical framing utilizing Kim's (2016) Levels of Theory. Kim's Levels of Theory offers clarity on the many theoretical perspectives at play in research. Levels of Theory conceptualizes theory in three parts: macro-level, meso-level, and micro-level. The macro-level theory consists of human science theories. For my research, the macro-level (philosophical frameworks or paradigms) theory is critical pragmatism (Kadlec, 2006; Biesta & Burbules, 2003; Feinberg, 2015). The second level of theory is the meso, which consists of methodology and methods. The methodological paradigm I utilize is narrative inquiry (Bhattacharya, 2017; Kim, 2016; Gough, 1993) through individual semi-structured interviews. Kim's (2016) third level of theory consists of content or disciplinary theory. At this micro-level, I implement relational ethics (Lévinas, 1981; Noddings, 1984; hooks, 2014; Freire, 2004), which is discussed in the literature review. Rooted within feminist care ethics and influenced by Emmanuel Lévinas (Metz & Clark Miller, 2016), relational ethics serves as the theoretical backbone of my study. This chapter elucidates the macro and meso levels of theory employed and outlines the methods and processes used to implement such theory.

OntoEpistoParaTheory

While this dissertation is qualitative, I have been influenced by literature on mixed methods research when thinking through my paradigmatic frames. Jennifer Greene (2007) used mental models to discuss ontological and epistemological framings. Despite this research utilizing qualitative methods, my *ontoepistoparatheory* (a combination of terms - ontology, epistemology, paradigmatic framing, and theory) is aligned with mixed mental models in the way that it disrupts some "paradigmatic claims that qualitative methods must be connected to constructivism and quantitative methods must be connected to post-positivism" (Morgan, 2014, p. 1045). Greene (2007) describes mental models as:

> set[s] of assumptions, understandings, predispositions, and values and beliefs with which we craft our work in terms of what we choose to study and how we frame, design, and implement a given inquiry. Mental models also influence how we observe and listen, what we see and hear, what we interpret as salient and important, and what we learn from our empirical work. (Greene, 2007, p. 12)

My philosophical, theoretical, and methodological assumptions are within a plurality of paradigms. I do not feel a reasonable cause exists to create an incommensurable binary between paradigms. I do not see paradigms as "philosophical purity" but rather as "an active engagement with the diversity of philosophical assumptions and stances in their dialogic form" (Greene, 2007, p. 54). There is "no epistemological difference, no epistemological separation, between the realm of theory and the realm of practice" (Biesta & Burbules, 2003, p. 1603). That being said, there are reasons to do research in specific ways based on set goals. Asking for the technical how-to is as important as the why-to (Morgan, 2014). "Thus, a limited emphasis on 'what works' is never enough because it ignores choices about both the goals to be pursued and the means to meet those choices" (Morgan, 2014, p. 1046). As such, my research is in the philosophical strand of pragmatism and critical theory or critical pragmatism. I discuss the meaningful parameters of pragmatism and critical theory as I see them and how they come together.

Pragmatism

Dewey’s pragmatism is relevant in contemporary social research, as he aimed to reconcile the divide between realism and idealism (Morgan, 2014). The distinction between realism and idealism is similar to the separation between post-positivism and constructivism, which has been used to apply epistemological frames to research (Guba & Lincoln, 2005). Post-positivists assert that the world exists independently of our perceptions, while constructivists say our perspectives create reality. Dewey believed that both views are significant in learning about and understanding human experiences.

> On one hand, the nature of the world necessarily constricts our experiences; on the other hand, our understanding of the world is inherently limited to our interpretations of our experiences. We are not free to believe anything we want about the world if we care about the consequences of acting on those beliefs. (Morgan, 2014, p. 1048)

Dewey's pragmatism emphasizes the importance of habits, thinking, and communication. Further, it assumes that people's 'transactions' with the environment have purpose, and through these interactions people collaboratively create activities that while not identical, add to a shared understanding of the world. This process is considered as intersubjective communication (Biesta & Burbules, 2004). In Dewey's writing, the intersubjective world and dynamic view of experience are critical constructs (Kadlec, 2006).

People's individual, unique worlds come together and need coordination through relations, communication, and social interaction. Coordination of these worlds must occur to create an "agreement as to proper diversity of attitude. Coordination and diversity of attitude then creates the intersubjective world (Biesta & Burbules, 2003). Truth and truthful representations do not come from individual transactions with the environment (Biesta & Burbules, 2003). People do not decide by themselves what the 'proper and authorized account' of themselves is. However, this account involves the coordination of individual worlds through communication, habits, and thinking - through a social world. Truth is, therefore, a social virtue, "meeting a demand growing out of social intercourse, and not a logical, much less an epistemological relation" (Biesta & Burbules, 2003, p. 1860).

Like Dewey, measuring what qualifies as real solely based on knowledge dismisses and belittles many aspects of lived experience as less than real. There are issues with the idea that *knowledge* is the only or most accurate measure of reality, particularly because it overlooks lived experiences, emotions, and social contexts that impact peoples' perceptions of the world.

Biesta and Burbules (2003) trouble the dichotomy between the subjective and objective, proposing that pragmatism is critical of dichotomies about and between epistemology and ontology. This conflates a binary, putting the affective/emotional at odds with rationality - making the emotional and affective knowledge an absurdity, the opposite of the rational. This is a problem because the 'real' is not just in terms of our theorizing; the subjective and objective - both are included but are not the only defining parts of knowing. This knowledge construct produced by the Western Enlightenment, which touts objectivity and rationality as real and positioned in opposition to subjectivity and the affective, relegates subjectiveness to the unreal. In this sense, pragmatism purports that subjectivism is just as rational and real as objectivism - there is no hierarchy of rationality and knowledge. In Biesta and Burbules (2003) critique of identifying what is known with what is real, they claim:

> The main problem of the identification of what is known with what is real is that it makes it appear as if all the other dimensions of human life- such as the practical, the aesthetic, the ethical, or the religious dimensions – can only be real if they can be reduced to and validated by what is revealed through our knowledge. (p. 316)

This critique highlights that "those aspects of human life that make it most typically human have been denied reality and, as a result, have been denied rationality" (Biesta & Burbules, 2003, p. 316). Pragmatism is critical because it challenges and interrogates power structures embedded in knowledge claims themselves. It highlights the absurdity of a hegemonic knowledge hierarchy and challenges the contentions between paradigmatic/knowledge claims.

Critical Theory

Critical theory is concerned with the socio-cultural and political. Critical theory focuses on relations of domination and subordination that create social inequality through "distribution, productions, and reproduction" (Kim, 2016, p. 36) and how oppressive social structures infiltrate lived experiences (Bhattacharya, 2017, p. 74). Critical theory stresses the importance of initiating inquiry by looking at the "contradictions inherent in a society" (Kim, 2016, p. 36) to catechize how and what is viewed as reality and what should be (Kim, 2016). Therefore, a rationale of critical theory is to ground action in compassion and a sense of others' suffering (Kim, 2016). As critical theory is a method for understanding levels and types of power and domination, it is also a "moral imperative" that emphasizes the need "for both individual empowerment and social transformation. That is, it emphasizes the need to develop critical consciousness in people as well as the need to change society" (Kim, 2016, p. 36). Critical theories are often seen as guides for human action because they 1) have goals of developing critical individuals who can identify their own interests, 2) are "inherently emancipatory, particularly in their attention to the ways humans unwittingly participate in creating the conditions of their own oppression" (Kadlec, 2006, p. 522), and 3) have a reflective epistemology that differs from 'objectifying' epistemologies found in the natural sciences (Kadlec, 2006). With these goals in mind, critical theory "seeks to counter hegemony to confront injustice in socially and historically rooted power relations" (Kim, 2016, p. 36).

Critical Pragmatism

Critical pragmatism fuses parts of critical theory and pragmatism. Critical pragmatism helps "promote the opening up and evaluation of new channels for experience to flow. The aim is to reduce domination and enhance agency" (Feinberg, 2015, p. 151). Kadlec (2006) contends that Dewey's pragmatism hosts an epistemological commitment to the social transformation potential through lived experiences and a "cultivation of reflective social intelligence" (p. 522), which is, therefore, a basis of a critical theory. A pragmatic commitment to social transformation is found through Dewey's' growth as the only moral end' - where growth is the capacity for critical inquiry, and the reciprocal relationship between growing social intelligence and "the goods generated by [those] means" (Kadlec, 2006, p. 537). Kadlec (2006) aims to narrow the "epistemological gap" between critical theory and pragmatism. Kadlec (2006) contends that while some critical theorists have debased pragmatism for being too problem-oriented and unaware of power structures, pragmatism (through Dewey) reconstructed "the power of lived experience to inform critical reflection," which is a type of "trenchant social criticism that is akin to the emancipatory interest-oriented analyses of traditional critical theorists" (p. 532). Dewey wanted to narrow the bifurcation of reason and experience in reconstructing lived experience as a part of critical reflection. In so doing, Dewey pragmatism illuminated the social inequality and injustice of class hegemony, the acceptance and honoring of high society knowledge creation through 'reason,' and the exclusion and belittlement of knowledge created by lower classes. Kadlec (2006) finds that if people do not pragmatically reconstruct philosophy to reclaim lived experiences as a social dynamic source for critical reflection, we will have difficulty understanding, let alone confront systemic injustices and inequalities that affect our past, present and future (Kadlec, 2006). When experience and reason are reunited, "it elevates experience and signifies that the prime function of philosophy is that of working toward realizing the possibilities of experience as a social and dynamic medium for critical reflection" (Kadlec, 2006, p. 535).

Critical pragmatism goes beyond traditional assessments of pragmatism's view of power relations by recognizing that factors other than coercive forces and violence can contribute to domination and subordination (Feinberg, 2015). Critical pragmatism also highlights situations of inequality where local understanding is systemically silenced, or communicative distortions go unrecognized. In these contexts, its primary task is to bring competing norms out to show how

they hinder experiences and foster the development of new approaches to enrich experiences. Critical pragmatism aims to highlight the root causes of systemic silences and dysfunctional behavior to explore and assess pathways for progressive and emancipatory change (Feinberg, 2015).

In educational research, critical pragmatism focuses on the human need to support emancipation and human well-being (Feinberg, 2015). To estimate if educational research is 'good,' critical pragmatists put importance on 1) taking into account various values, 2) whether the research serves to improve people's circumstances, and 3) offering people "intellectual tools for reflecting on their own… aims and interests" (Feinberg, 2015, p. 151). From Dewey's thought, if we lose the social functions of knowing, we lose the ability to be critically conscious of "distortions in communication which serve specific anti-democratic interests" (Kadlec, 2006, p. 535) and therefore, our research loses its critical and emancipatory purpose; we become unable to recognize the hegemony and power structures at work when "particular interests masquerade as epistemological truths" (Kadlec, 2006, p. 535).

Narrative Inquiry

Bhattacharya (2017) elucidates that narrative inquiry delves into the nuanced tapestry of a research participant's life experiences, looking to find specific threads that sew their subjective reality. In a different vein, critical theory operates within a broader frame, aiming to delve into participants' experiences and perspectives through a socio-political lens to expose power structures, challenge hegemonic discourse, and ultimately make social changes through practical solutions for entrenched social issues. However, the dichotomy between these two theories is nuanced, and their boundaries can be blurred. As Bhattacharya (2017) acknowledges, many researchers have blurred these boundaries and epistemological categorization. Instead, they favor a more fluid approach that can draw from and combine elements of various methodologies and theoretical lenses. From the blurriness emerges my research, a tapestry of narrative, critical theory, and pragmatism, creating this research's subjective reality.

Educational knowledge is discursively created, and what people say they know, individually and collectively, about education comes from stories told about experiences in/with education (Gough, 1993). Stories are created in formal (policy, academic papers) and informal discourses (anecdotes and gossip) (Gough, 1993) and social media. "It is stories that will help us

stay attuned to the ever-changing understandings of our humanness" (Kim, 2016, p. 35). Narrative inquiry is partly concerned "with the analysis and criticism of these stories, the texts (oral and inscribed) in which they are embedded, and the myths and metaphors they employ" (Gough, 1993, p. 176). Narrative approaches to research can provide space for people to find how their contexts and experiences impact their individual and collective sense of self (Blackmore, 2020). Narrative inquiry is "interested in understanding how people articulate their life experiences in the structure of a story" (Bhattchatya, 2017, p. 26). Connelly and Clandinin (1990) claim that education is part of the continuous construction and reconstruction of personal and social narratives by students and teachers alike. Narrative inquiry represents a framework for educational experiences as lived and narrated stories (Connelly & Clandinin, 1990). Using Dewey's theory of experiences as a base, they argue that narrative inquiry is helpful for educational research because it helps to organize individual and social human experiences, which becomes a way to interpret the world.

Munro's (1998) concern about narrative inquiry is that researchers may overlook the inquiry aspect, leading to a romanticization of the individual and reinforcing an idea of a singular subject or hero. This would then open narrative inquiry approaches to criticism of being self-absorbed or indulgent in introspection. To address such criticism, the significance of intersubjectivity within qualitative work should not be overlooked.

Consideration for Ethical Research

Ethical research is not just a set of guidelines, but it shapes how the researcher and participants interact. My perspective of ethical research emphasizes the importance of privacy, integrity, reflexivity, and transparency throughout the research process. As this research's theoretical lens is critical pragmatism, I have assumed a stance emphasizing the importance of practical, workable outcomes while being critical of perpetual norms and power structures. Ethics, while not just a set of guidelines, does guide actions based on moral principles and thinking through what is right and just. For this research, I had to fuse these two concepts when considering how to proceed; it meant pursuing practical research outcomes while questioning normative assumptions to ensure I acted according to ethical standards. The IRB process was helpful in that pursuit.

One of my primary concerns regarding any research has always been the privacy rights of participants. This comes from my constant reflection (and perhaps, at times, paranoia) on my own anonymity and the broader implications of surveillance issues. In conventional qualitative research, a researcher usually holds more power than those they are researching, highlighting the importance of protecting participants' rights to privacy (Glesne, 2014). Researchers must also navigate potential deception and ensure reciprocity, fostering ethical research processes. As Glesne (2014) points out, privacy concerns exist in data collection, analysis, and writing. I was constantly wondering if my written perceptions and connections to literature and theory were aligned with my ethical codes despite being in line with the IRB. I worried that my surveillance of participants' narratives stripped them of their right to privacy. As much as I wanted to ensure a symmetrical, reciprocal relationship by listening and being friendly, I also know that after the interviews, I took many weeks to dive into their words when they went on with their lives. I do not know if reciprocity and symmetrical relationships are entirely possible in this research (Glesne, 2014). However, I hope that acknowledging this complexity allows more nuanced understandings of researcher responsibilities. While my cynicism suggests that we often fall short of these ideals, I continue to believe that reflection and mindfulness can still guide research to better practices and applications, showing researchers that it is important to strive for reciprocity.

I also considered my researcher subjectivity (Duarte, 2020) and intersubjectivity (Glesne, 2014). Glesne describes intersubjectivity as "used to highlight the fact that subjectivities that help to shape research are not those of the researcher alone" (1999, p. 110). Intersubjectivity is part of a co-construction of knowledge through our relation and interaction. Intersubjectivity highlights the importance of political and historical contexts, cultures, and lived experiences in the research process and its outcomes.

Duarte (2020) views researcher subjectivity as the researcher's past and context they bring into the research process, which they cannot shed and inevitably influence how they work with participants and data. Researcher subjectivity, therefore, is about reflexivity and awareness of one's own values, positions, and assumptions. This awareness of one's own subjectivity as a researcher can then assist with research transparency and ethical proceedings.

Researcher subjectivity is part of intersubjectivity. My values, positions, assumptions, and perspectives inform how I engage with the research participants, analyze the project's data,

write about it, and construct knowledge. Being aware of my researcher subjectivity and being reflexive, I have attempted to lessen the degree to which my subjectivity skews the knowledge construction but also embrace that it will regardless of attempting otherwise, which is what makes it unique. By acknowledging my researcher subjectivity and embracing the intersubjective nature of research, there is a type of validation whereby many perspectives are included and analyzed, making research reliable and credible.

Lastly, I want to note my consideration of openness and honesty within the research, which connects to intersubjectivity. This is intertwined with my views of teaching as a practice. I am a more effective educator, and more engagement occurs when I am open and honest - vulnerable with my students. I applied this idea to research; I did not want to hide my views as they might influence the participants because it felt like a deception. Punch (1986) suggests that some types of deception are sometimes necessary and justified in research if they serve the greater good. To counter such a utilitarian approach is the deontological ethical stance (Glesne,2014). The deontological approach posits that the morality of actions is determined independently of their consequences. It holds that actions are evaluated based on standards like justice, respect, or honesty (Glesne, 2014). As such, it alters the researcher-participant relationship by making it unethical for the researcher to deceive participants about their identity and purpose for the researcher or to leave participants feeling deceived (Glesne, 2014). This is the approach I took when conducting interviews with my participants. I tried to be as open as possible about myself, my views, why I was conducting the research, and to what end. I wanted our time together to be a conversation - not only their answers.

Methods & Analysis

Initially proposing this study, I intended to use narrative photovoice (Simmonds et al., 2015) and focus groups (Kinzinger, 1995). However, as the project progressed and I engaged with participants via email, it became apparent that the teachers preferred one-on-one interviews. Consequently, I pivoted from focus groups to individual interviews. Despite initially intending to implement photovoice, it did not strike a chord with participants, maybe because of the overwhelming amount of email they received, and they did not have the time to read it thoroughly. I again pivoted, adjusting my approach, and decided not to insist on visuals from the

participants while we met or after that. I felt we would waste valuable time together if they were searching for something to show me, or it would be annoying for them to have to look after the fact, and then we would have to meet again to discuss it, which would not have been something I felt comfortable asking of them.

Nonetheless, one of the teachers provided a visual, and another allowed me to photograph some of her work, which will be included in the analysis, hoping to enrich its context. Consequently, but not negatively, the project now employs narrative inquiry through semi-structured interviews (Creswell, 2003; Merriam, 2009) with guiding questions. The research questions were essentially the same, and I still employed the SHOWeD acronym (Wang et al., 1998) while conducting interviews.

To assist in getting what is needed from focus group participants in terms of the contextual, cultural, and social factors that inform their perception of their identity, agency, and subjectivity, Wang et al. (1998) suggest using the SHOWeD acronym. While I conducted individual interviews, I decided SHOWeD would still assist me in this way. SHOWeD is both data collection and analysis within photovoice (Wang et al., 1998). SHOWeD stands for these types of questions: What do we SEE here? What is HAPPENING here? How does this relate/resonate to OUR lives? (*Our* meaning those participating in the focus group). WHY do these problems and strengths exist? What can we DO about this? - The SHOWeD approach can help elicit dialog and reflections around teacher identity, subjectivity, and agency when teaching through and with digital technologies. When asking myself, "What do we see here?" I placed it in the context of the classrooms in which I met with the participants instead of any offered visuals. Remembering this was beneficial during the interviews as I navigated the guiding questions while seeking to address my overarching research objectives.

When creating my focus group/ interview questions, I was guided by previous studies using narrative photovoice, narrative inquiry, and abductive thematic analysis. Wang & Burris (1997) used photovoice when working with rural women in China to better understand and develop awareness for women's reproductive health, while Simmonds et al. (2015) used narrative photovoice while studying South African schoolgirls meaning-making of their gender in everyday experiences. Bell (2016) conducted a photovoice project with five community groups in support of environmental justice activism in central Appalachia.

For my analysis, I used an *analysis of narrative* based on Polkinghorne's (1995) paradigmatic cognition. Analysis of narratives or the paradigmatic mode of analysis involves methods that organize examples into various categories and subcategories according to shared characteristics (Sharp et al., 2019). Polkinghorne (1995) posits that paradigmatic cognition creates cognitive networks of concepts, enabling people to perceive experiences as familiar by highlighting recurring common elements. Narrative analysis, using the paradigmatic approach, involves three main aspects: 1) it identifies and explores specific thematic categories and the relationship between them, 2) it uncovers broad patterns that are present across the data sources, and 3) it aims to derive general insights from a lot of evidence and/or narratives which may diminish and deemphasis the uniqueness of each narrative (Kim, 2016). Often, within the analysis of narratives, the conceptualization of categories or themes is created inductively or deductively (Polkinghorne, 1995; Sharp et al., 2019). However, I used an abductive process using both preset and emergent codes (or themes) (Taylor-Powell & Renner, 2003). Using preset and emergent codes is an abductive process that allows my research to use concepts from preexisting sociological theories (Timmermans & Tavory, 2012). This process includes creating categories and changing to more relevant codes for the data. "Abductive research is neither data-driven nor hypothesis-driven but conducts parallel and equal engagement with empirical data and extant theoretical understanding" (Thompson, 2022, p. 1411) and originates from pragmatism.

When using abductive thematic analysis, the researcher goes into the project and analysis with theory and concepts, which are used to set parameters for what they are looking for with their research questions (Thompson, 2022). Abductive theoretical analysis does not look for one truth – an objective but instead searches for pragmatic findings, whether solutions and explanations (Coffey & Atkinson, 1996) or exploratory driven. While using abductive analysis, I look to the codes found in the data, emergent from theory parameters, to see what is based on the preexisting literature and what emerges as unexpected. Therefore, it can help illuminate gaps in theory and literature based on my current study. When this happens, the researcher theorizes about these emergent themes (or codes), generating more different perspectives on the research topic (Timmermans & Tavory, 2012). As such, abductive thematic analysis is both recursive and iterative as it uses theory to create theory and/or makes known themes/codes already well explained and discussed through the literature (Timmermans & Tavory, 2012).

Abductive analysis within the analysis of narratives can open up space beyond what has been theorized to theory creation using past theory. The SHOWeD approach, when used with individual interviews, as my research does, coupled with Polkinghorne's analysis of narrative, can facilitate ethical research writing and analysis. This approach prioritizes examining the relationships between the researcher and the participants. Additionally, it exposes the connections between the participants' narratives. Since the relationships created with the participants are central to the work, how I created categories from their narratives and for what purpose I am creating such categories or themes was essential in creating ethically sound research (Clandinin & Connelly, 1994).

Participant Recruitment

I initially invited participants from Butler County, Ohio. In my research, I decided to include all high school teachers, grades 9 - 12, from all disciplines and at any tenure in their career. Only teachers who never used digitalized technologies would be excluded, which excluded no one. After recognizing the scarcity of willing participants, I opened the scope to include Preble County, Ohio, directly to the north of Butler, attempting to attract more participants. This is a geographically bounded study or is bounded by place (Creswell, 2002). I also limited the study to high school teaching as there is often variation from high school teaching perceptions to elementary or even early middle school regarding how teachers perceive their work (Marston et al., 2005). I did not limit the demographics for the subject taught or tenure. By embracing some diversity in demographics, I anticipated a richness of experiences and the cultivation of a wide variety of perspectives. *Minimally*, I wanted to have eight participating teachers; I was fortunate to meet that minimal number, but I still hoped for more.

The initial invitation was an email to participate, including a short description of the research and a request for them to send the invitation to others they feel might be interested in participating, a snowball tactic (Noy, 2008). I initially emailed all teachers from eight local public high schools, totaling 724 addresses. Once a participant responded with interest, I sent them a short precis to give them an in-depth idea of what we would do. Within a week, five participants confirmed, one was uncertain, and one requested to be removed from the list. A week later, I sent a follow-up email, expanding meeting options, emphasizing individual interviews and flexible scheduling. One additional participant was confirmed within the

following week. Another follow-up email yielded no response, which led me to reach out to personal connections, leveraging community ties and contacts through friends. My advisor also assisted by reaching out to teachers she knew. Ultimately, the final two participants were confirmed through these efforts, and I cannot express my gratitude enough for those eight wonderful humans who gave me their time.

Additional participants were not secured despite the text messages to friends, community connections, and emails. I had secured a total of eight interviews by December 2023. Each invitation emphasized varied meeting formats, initially focusing on focus groups/group meetings but offering individual options and progressed to the opposite. It was obvious from other teacher requests that one-on-one meetings were preferred. The process was an exercise in humility. I became critically aware of my social circle's sparsity and lack of persuasion skills. I initially thought that conducting research in my own community would give me more access to interviews, but doing research in your own backyard (Glesne, 2014) has many possible issues, some unforeseen.

Site Selection

Selecting the site for this study involved my personal context, geographical location, and desired research timeline. Geographically bounded research ensures proximity and accessibility for the researcher (Creswell, 2002). I expanded my bounds to include a second county to meet my minimum participant goal, but the participant lived in the bounded area and only worked one county over. Glesne (2014) suggests that such geographically bounded studies can encompass "backyard" research, which is happening close to the researcher, and offers a geographic commonality between participants - their space is a commonality. I personally chose the geographical bounds because of my context and realities. I live where I am researching - "background research." As a community member, I have historical, geographic, political, and personal knowledge of the area. I am a mother to small children who are bound by school and their lives, and it is much more financially accessible to research without traveling far or having extended stays away from home.

There are challenges with "backyard" research, one of which I illuminated earlier. While backyard research offers familiarity and accessibility, it presents the challenges of dual role-playing (Glesne, 2014). For example, I am a community member to some of my participants, but

I am now their interviewer. In another instance, I was the student of a participant. Am I viewed in this instance as the researcher or as a former student? Some participants were people I know or friends of those I know. Does that knowledge change how participants respond to my questions? How do they interpret my questions, and what are they willing to share with me? Gilligan (2016) emphasizes the importance of reflecting on these dynamics and their potential impact on the research process. Some of these questions will be addressed in more depth in the analysis.

Site and Participant Descriptions

This project was conducted across five public high schools and involved eight high school teachers located in southwestern Ohio. As I get closer to describing the participants, I want to acknowledge an ethical distinction in the purpose of this research. As I have rooted this work in critical pragmatism and relational ethics, I need to reiterate that subjectivities, teacher subjectivities are not isolated entities; rather "always linked to something outside of it - an idea or principle or society of other subjects" (Mansfield, 2000, p. 3). This research plays with an educational reorientation of the approach to morality to center relations as pivotal to understanding the evolution of subjectivities in the shifting landscape of digital contexts. This research does not critique teacher practices, subjective positions, views, or their professional dedication and rigor. Each of these teachers involved in the research demonstrated exceptional professionalism, mastery of their craft, and profound commitment and care to and of their work, districts, and students, all in their own ways. Instead of critiquing these individuals, which would be antithetical to the modus operandi of the research itself, this research focuses on synthesizing insights from their experiences to illuminate the intersection of digitalization and education, particularly emphasizing relational ethics. With that being hopefully clear, I will now describe the people and places that made this research possible.

I decided to only invite participants from high schools for a couple of reasons: 1) I used to teach high school, and 2) I have a notion that younger children and older children interact with technologies differently and have different rules/policies about technologies in schools. A study comparing the two or another study to delve into the digitalization of elementary education and teachers' subjectivities in those spaces should also definitely occur. Since this research is about teachers' subjectivity within the digitalization of education and all schools in the local area have

digitalized in various ways, there was no weeding out process for schools that did not use or have any experience with such things. Instead, I grounded the study geographically (Creswell, 2002) to fit my personal ability and needs and to give a space for commonality between the participants. I ended up with participants from four different schools in two counties.

Participant Schools

This study was about the teachers and not the schools where they teach. However, this section provides context to the teachers' schools to better understand their professional lives. All sites in this study are located in southwest Ohio. Pace* High School is a public high school with grades 9 - 12. It is "fringe rural," meaning it is about 5 miles from an urbanized area with an average enrollment of about 1,000 students and 50 classroom teachers, maintaining a lower student-to-teacher ratio. The school's minority enrollment is 11%, and 29% of students face economic disadvantages. Reflecting the demographics of the community, Pace High School's student body comprises 88.7% identifying as White, 3.8% as two or more races, 2.8% as Hispanic, 2.2% as Asian, 2.1% as Black, .3% as Native Hawaiian/Pacific Islander, and .1% as American Indian/Alaska Native. The school sits in a town of around 20,000 people. The town demographics are similar to those of the school, with 38.1% owning homes. Technological access is widespread, with 95% of the community having a computer at home and 86% having broadband internet subscriptions. Pace High School has a graduate rate of 95%. For a student to graduate, they must complete 4 English, 4 Math, 3 Social Studies, 3 Science, ½ Health Education, ½ Physical Education, ½ Personal Finance, ½ College Readiness, 1 Fine Arts, and five other electives. AP courses are offered, and 32% of students participate. The Arts are developed, including multiple vocal music opportunities (chamber choir, acapella group). Ceramics, jewelry making, theater, digital media design, and traditional drawing and painting courses are also offered. This school district has a 1:1 program, meaning each student has a Chromebook to take home and use for the year. The district has a technology integration coordinator. Pace primarily uses Google Classroom as its LMS (Learning Management System).

More* High school is a public high school with grades 9-12. The school typically has around 300 students enrolled and employs 23 teachers. More High School is also a "fringe rural" environment. The school has a 6.8%minority enrollment and a 93.2% White enrollment. 3.6% identify as two or more races, 1.6% as Hispanic, 1.3% as Black, and .3% as Asian. The

graduation rate is 94%. To graduate, students must complete 4 English credits, four math credits, three science, three social studies, .5 health, .5 physical education, one credit fine arts, and five electives. AP courses are offered, and 32% of students participate. More has an extensive performing arts program, including a symphonic, chamber, concert, and an a cappella choir. Students can partake in band starting in 5th grade. There is also a large drama club with many non-performance-based opportunities for students. The town in which More High School is located has a population of 3,763. 94% identify as white, 3.5% identify as two or more races, 1.3% identify as Black or African American, and .94% identify as Asian. There is a 71% homeownership rate. More students use Chromebooks, and the district employs a technology coordinator. More uses PowerSchool as its LMS.

Lennox* High School is a public high school with only the 9th grade. The school typically has approximately 700 students enrolled and 31 classroom teachers. Lennox is located in a large suburban area. The town's population is 62,500. The town's racial demographics are 80% White, 7.6% two or more races, 2.65% 'other,' .67% Asian, .23% Hawaiian/Pacific Islander, and .16% Native American. The school's demographics are 60% white, 20% Hispanic, 13.5% Black, 4.9% two or more races, .7% Native Hawaiian/Pacific Islander, .6% Asian, and .2% American Indian/Alaskan Native. Lennox students must earn 22 credits to graduate: four English, three Math, three Science, three social studies, two Foreign Language, one Fine Arts, one PE, and five electives. AP courses are offered with a 16% participation rate. Lennox has an arts program and an extensive athletic program. Lennox has integrated a 1:1 program with every student having access to a Chromebook. Lennox uses Abre as its LMS.

Hanover* High School is a public high school with grades 9- 12. The school typically enrolls 800 students with 35 classroom teachers. Hanover is also within a "fringe rural" community. The total minority enrollment in Hanover High School is 3%. 20% of the students are economically disadvantaged. 97.2% are White, 1.3% are Two or More Races, 0.8% are Hispanic, 0.3% are Asian, 0.2% are American Indian/Alaska Native, and 0.2% are Black. Hanover is in a community of almost 9000 residents, and the population demographics mirror the racial demographics within the school. Hanover's graduation rate is 95%. Students must earn 25 credits to graduate, including four English credits, three Social Studies, four Math credits, three Science credits, ½ Health, ½ PE (or two seasons of athletics), ½ Career Pathways, and ½ credit in Financial Literacy, and the rest in electives. AP courses are offered, and 22% of

students participate. Hanover has an arts program that includes band, choral, and visual arts. Hanover has an explicit 1:1 program in place for students K-12. Grades 6 - 12 are given Chromebooks with a power adapter and carrying case. Kindergarten - 5th grades are issued Chromebooks for in-class work. Hanover uses Schoology (part of PowerSchool) as its LMS.

Participants

Bobby is a high school teacher at Pace High School. Bobby has taught English for 19 years at Pace High School. She has taught public speaking and speech classes as well for 15 years. She has taught primarily first- and second-year students. Bobby has two children in elementary school and one in middle school. Bobby did not always know she wanted to be a teacher; however, now she could not imagine doing anything else. She loves working with high school students and the content she gets to teach. She went into college undecided about what she wanted to finish with, but she really enjoyed journalism. She began down the path to becoming a journalist. However, through university education courses, she decided she loved the idea of teaching and a career where she would "interact with humans" more than might happen in some positions available in journalism. Bobby places much educative value on the development of "global citizens" in high school. Bobby states why education is important to her:

> I just think that through reading and writing, we can make students better, like global citizens. Yeah. Like we're reading books, and yes, they must pass the graduation requirement, and they need to learn the skills. But I like to think, you know, they're being exposed to, like different situations, and seeing outside their little bubble. And hopefully that, you know, is giving them something to think about. And they're leaving my classroom a better person than when they came in. (Bobby)

Steve is a high school teacher at Pace High School. He has taught social studies for the past 27 years, 24 of which have been at Pace High School. Steve holds a graduate degree in education. Steve also coaches high school sports teams. Steve has three young adult children. Steve decided he wanted to be a teacher when he was a teenager. He came from a family of teachers and wanted a career where he could serve his community and positively impact it. He believes teaching is his vocation, not ending at a certain time, but he is always a teacher. He told me:

> You never get to know what impact you make. It's kind of like planting seeds and walking away, and you don't know if the plant grows or if it doesn't grow, but you kinda hope that it does. And you believe that - I believe that it does. (Steve)

Steve finds practical, moral, and spiritual values in education. He articulated that the practical values include having a job that can support his family and having skills that make him a "functioning adult in American society and pay your taxes and be a good mother, be a good father." In the moral and spiritual sense, Steve is concerned with human understanding and peace. He said: "I think one of the key components of public education is bringing together a diverse population of students in a community and helping them to understand one another better. The more people understand their differences, the less likely they are to have conflict. So, understanding where other people are coming from, I think, is the first step in tolerance and understanding. I think that's what we want for our community, our state, and our country."

Peter is a high school teacher at Pace High School. He has taught English for the past 15 years. This last year was his first year at Pace High School. Peter has taught in middle and high schools and university settings, including online teaching. Peter holds a graduate degree in education. Peter is a parent. Peter became a teacher later in life. He first got a degree in creative writing and wrote in the corporate setting, which ended with him deciding to go to graduate school to obtain a degree in education. He was apprehensive about it as he explained himself as "not very, you know, gregarious." However, his love of writing and reading made him want to get others excited about it and build students' confidence in reading and writing. For Peter, education is important for building confidence in people, and he loves being part of that process. Peter told me, "It's watching them be so, you know, unconfident in the beginning and then going to that place where, like, 'Hey, I can actually do this.' Yea. Watching that process is kind of the thing I love about [teaching]."

Phoebe has taught for 32 years, including career-based intervention, English, and night school classes. Phoebe teaches at Pace High School. She holds a graduate degree in English and has taught internationally and domestically. Phoebe has two adult children. Phoebe is from a family of teachers and decided early on to be involved in education somehow. At first, she wanted to go into the music side of education but decided to broaden her area to English. Phoebe felt her high school experience was good - she had fun, and her teachers were engaging and helped her explore and learn, so she wanted to do the same for others. Plus, she liked the

teaching lifestyle - the lifestyle of being a lifelong learner was appealing, and having the summers off to learn in other ways and have fun. Ultimately, Phoebe wants to help motivate students to enjoy their life experiences with learning at its center. In Phoebe's words:

> Learning is so cool, and learning is the journey and the whole like lifelong learner stuff and all the - all that flowery liberalism. You know, I thought this is how you - this is - what a great way of life. (Phoebe)

Maude is a high school teacher at More High School. Maude has been teaching for a total of 28 years. She has taught in various locations in elementary, high school, and university settings. Maude currently teaches art at More High School. Maude is a parent of two. Maude has a graduate degree in the arts. Maude wanted to become a teacher because of the influential teachers in her life. She learned so much and admired them. She loved learning directly from another person and placed educative value on that process. Maude feels this person-to-person learning was and is especially important for her in the arts. She told me that how she learned from them was just as important as what she learned from them:

> The main reason I wanted to be a teacher was because I valued my teachers and what I learned from them and how I learned from them. And I thought I like art. I like the educational process. I like the whole situation where I'm sitting here, and I'm learning something from someone directly. (Maude)

She decided that teaching could be something that kept her in that process.

James has taught history for 29 years. James currently works at Lennox High School. James has taught in middle and high school within the same school district. He is a parent to a daughter in high school and a son in college. James is involved in public service and has received awards for his teaching. James holds multiple graduate degrees in history and education. James did not initially want to be a K-12 teacher but a history professor. However, for practical economic reasons, he decided to try his hand at teaching and ended up having fun student-teaching, finding value in the experience. He, however, is passionate about his subject. "I liked being a TA in the history department. It was fun. I love history. I mean, I love history…. But I love teaching. I love teaching. It just depends on the venue." James' dedication to history infuses his teaching with a profound significance. He ensures the learning experience is enjoyable and enriching from the historical content.

At the time of this research, I was also able to talk with James' student teacher, Sue, for a bit. I did not complete a full interview with her, but her input was included in the interview between James and me. She was in her last year of a social studies education undergraduate degree program. She comes from a family of teachers and values literacy in education.

Marie teaches English at Hanover High School. She has taught English for 28 years, 18 of which have been at Hanover High School. She has taught both in high school and college settings. Marie is a parent of one and a grandparent of three. Marie knew when she was in 6th grade, she wanted to teach. She said:

I just knew early that this is what I wanted to do. And I was one who wanted to take care of all the kids. I wanted to listen. I was super empathetic. I had a friend in sixth grade whose parents were going through a divorce, and I would go home and cry for her. So I felt all the stuff that everyone was going through, and I was like, man - somebody needs to help them, someone needs to be with them. So I often tell my kids [her students] I'm here because I like to hang out with teenagers, and I just happen to be good at English. So it's what allows me to spend time with you. (Marie)

Marie is a teacher in other areas of her life, in the community, at home, and in her church. "And I honestly feel like it is my calling, it is what I'm made to do. Like I am that in other places as well." Marie also intensely values education through literature. Marie is concerned with the impact education from literature has, especially on understanding human behavior and relationships to navigate life. She feels literature is valuable to this by immersing people in the stories into the characters' experiences, thereby observing various relations. She finds that people who read fiction have higher levels of empathy, which is necessary to understand different cultures and people. She believes such understanding can lead to people interacting effectively in modern society. She thinks lifelong learning is essential for personal growth and becoming the best version of who one can be.

Syd teaches high school math at Hanover High School. Syd has taught for 13 years, but this was her first year at Hanover High School. Syd has taken courses toward a PhD in education and holds a graduate degree in education. Syd has two adult children. Syd loves the learning process, connecting to other people, and learning about how they learn. She feels learning is a lifelong pursuit and fascinating to watch and participate in when invited. She loves finding out about her own learning processes in education and learning from and about others. She said:

> And their giftings and what they're good at and building the now into the future. … I think teaching is a gift. Not everybody has it. I want to connect with students, but since 2020, there's so much feeling, mental health, mental health, mental health…. I have the feels, feels, feels. So now I'm like, okay, I'm not in it for their feelings. I'm in it to build a strong person, and so they are mentally and emotionally critical thinkers. So they know how to align their thoughts, know how to live life by thinking and feeling. (Syd)

Data Collection

I meet with participants for individual interviews between October 2023 and December 2023. I went to their respective schools and into their respective classrooms. In the emails, I told the participants that the interviews would last no longer than an hour, but the longest was around 1 hour and 40 minutes. At the beginning of our meetings, I introduced myself and outlined my research aims and some central terms. Each participant had an idea of the research from the emails and precis, but I thought this would break the ice and get us talking right away. During the interviews, I recorded our conversations with a digital voice recorder, interview notes (not many as I felt I wanted to be present instead of writing incessantly), and the two visuals - a digital photo I took and a printout a teacher gave me. After the interviews, I wrote reflections.

Data Analysis

"Researchers code to get to grips with our data; to understand it, to spend time with it, and ultimately to render it into something we can report" (Elliot, 2018, p. 2851). As described earlier, my data analysis followed abductive analysis (Thompson, 2022; Timmermans & Tavory, 2012) and analysis of narratives (Polkinghorne, 1995). The data analysis process loosely followed Thompson's (2022) 8-step prescriptive approach. Thompson's steps include 1) Transcription and Familiarisation, 2) Coding, 3) Codebook, 4) Development of themes, 5) Theorizing, 6) Comparison of Datasets, 7) Data Display, and 8) Write Up. I, however, have become a firm believer that the analysis must fit the researcher and the research. My process went accordingly:

I transcribed the interviews and printed hard copies. I read the interviews once just to read them. This occurred within a few days after the interview was conducted. Then, I read through the interview a second time with pencil annotations and underlined important bits.

During the first two readings, I let my instinct lead and followed hunches to find codes throughout the interview transcripts (Dey, 1993). The process of following your instinct and hunches is often called pawing (Ryan & Bernard, 2003), the ocular scan method (Bernard, 2000), or eyeballing (Ryan & Bernard, 2003). I conducted a third read-through, in which I consciously created a list of codes from the annotations for each interview. "Coding is the process of analyzing qualitative text data by taking them apart to see what they yield before putting the data back together in a meaningful way"

(Creswell, 2015, p. 156). Next, I compiled a master list in Excel with all the codes from each transcript. Each interview had between 17 - 25 codes. I considered these codes the first iteration in my coding process (Punch, 2014). First-level codes are "descriptive, low inference" (Punch, 2014, p. 174) and suitable for data summarization. Some fit in easily, but it became apparent that some were not as relevant to the research questions.

Figure 1

Second-Level Codes and Themes

<table>
<tr><th>Second-level Codes</th><th>Themes</th></tr>
<tr><td>Identity & Subjectivity</td><td rowspan="6">Digital Craft

Teachers seem to say that technology is an annoyance and a benefit, but it has not seemed to impact them - who they are, but it has impacted their roles as teachers.</td></tr>
<tr><td>Teacher Choice</td></tr>
<tr><td>Emotion</td></tr>
<tr><td>Educational Ideals</td></tr>
<tr><td>Teacher Perception of Tech</td></tr>
<tr><td>Training</td></tr>
<tr><td>Time</td><td rowspan="3">Digital Shifting

Teachers reflect on the changes that have occurred over time to the hardware and software they use and the impact the changed environment and time have on work, school, and learning.</td></tr>
<tr><td>Changes in Tech</td></tr>
<tr><td>Space & Material</td></tr>
<tr><td>Relations</td><td rowspan="3">Digital Binding

Teachers reflect on their educational relationships with students, considering how technology influences these relationships. They examine their views of how digitalization affects subjectivity, roles, and expectations.</td></tr>
<tr><td>Expectations</td></tr>
<tr><td>Views of Tech Influences on Students</td></tr>
</table>

Pandemic Changes	Found overall

I re-read the interviews with the first-level codes to create pattern codes or second-level codes (Punch, 2014). Second-level codes are a kind of "meta-code" (Punch, 2014, p. 174) that focuses on finding patterns and making meaningful units. "Pattern code is a more abstract concept that brings together less abstract, more descriptive codes" (Punch, 2014, p. 174). Like Elliot (2018), I perceive coding as a deliberative process wherein decisions are made within the context of the specific research project. This read-through rendered a consolidation of codes into 13 second-level codes. I developed themes from the 13 second-level codes, grouped similar codes, and labeled them using literature supporting the project (similar to Thompson's fourth step - development of themes).

Following the fifth step, I theorized. Theorization is an important step in abductive analysis, as it distinguishes it from deductive and inductive methods of analysis (Coffey & Atkinson, 1996). Unlike deductive analysis, abductive analysis does not try to force data into existing theoretical frames (Coffey & Atkinson, 1996). Distinct from inductive methods, abductive methods do not attempt to create brand new theories from scratch based on the purview of the researcher (Coffey & Atkinson, 1996; Gioia et al., 2012; Thompson, 2022). Instead, the theorizing from an abductive approach, the description, discussion, and explanation of themes is guided by existing theory and literature but not determined by it (Atkinson et al., 2003; Thompson, 2022).

Theorizing data begins with thoroughly examining existing theoretical knowledge and frameworks to gauge if they can help explain relationships between the themes found in the data (Thompson, 2022). It is also important to look for themes that cannot be explained by the existing literature (Thompson, 2022). This stage might clarify that theory can be refined, changed, adapted, or even consolidated with another conceptual idea to better account for the empirical data (Thompson, 2022). This can then create the research's overall contribution to theory (Coffey & Atkinson, 1996) - or practice. Sometimes the existing theory can fully account for and explain the empirical findings (Timmermans & Tavory, 2012). When this occurs, the research confirms the literature and theory and adds less theoretical contribution. However, even the slightest intersectional interaction or contextual anomalies can create small theoretical developments (Makadok et al., 2018). What is essential in the theorization step is for the

researcher to parallelly engage with the data and theory to create some theoretical outcome (Reichertz, 2013; Thompson, 2022).

Conclusion

This chapter laid out the theoretical and methodological assumptions and methods employed in this research. Using a qualitative method and methodology through semi-structured interviews and abductive thematic analysis, this research evolved as I reflected on a mixed methods frame of mind, critical pragmatism, and relational ethics. I attempted to proceed ethically by making asymmetrical researcher-other relationships open and honest, with intersubjectivity a main anchor. The unplanned change in methods, from focus groups to individual interviews, was one that I reflected on and thought about what the participants might feel and think during the different data collection models in hopes of ensuring integrity and relevance. The data analysis followed a systematic, yet intuitive coding process guided by theoretical insights and empirical data. The iterative coding process and the depth of engagement with the data have provided validity and trustworthiness in this project.

Chapter IV

Analysis: Digital Craft and Digital Shifting

This chapter focuses on two of the three themes of this research project: Digital Craft and Digital Shifting. They are significant to this study as they offer views of today's teachers' perspectives. Digital Craft and Digital Shifting are distinct themes, but they are also interwoven in the data collected from this study. As these themes are explored in this chapter, I hope it becomes clear that each theme has its own slant on the experiences and narratives of teachers, each offering unique insights into the complexities of the digitalization of education and neoliberalism, subjectivities/identity/agency, and relational ethics.

Digital Craft comes from codes such as Subjectivity and Identity, Teacher Choice, Emotion, Educational Ideals, Teacher Perception of Technology, and Teacher Training. Digital Craft highlights that teachers view technology as both a challenge and a benefit in their work - on their craft. While technology affects their teaching methods, pedagogy, and interactions with students, it has not significantly changed who they believe themselves to be. I chose to title this theme Digital Craft to emphasize the skill, aesthetic consideration, and ethical responsibility that teachers associate with their integration of technology. Unlike ‘practice and ‘methods’ which suggest a more formulaic approach, *craft*, conveys a more nuanced, reflective way that teachers engage with digitalization, recognizing the creative parts of their work, within the complexity of digitalization.

My first question for this study is: How have teacher identity, subjectivity, and agency been challenged and uniquely developed within the digitalization of education? Digital Craft intersects with this question through teacher choice and their agency. Digitalization introduces a plethora of tools and resources for teacher use. Teachers' perceived ability to choose and use resources and tools can influence their teaching values and beliefs, thereby forming their professional selves. Teachers' emotions about their use of technology and the digitalization of educational spaces also impact their professional identity formation. Positive experiences with digitalization enhance their confidence and sense of efficacy, while negative experiences can lead to frustration, burnout, and demoralization. Teachers' educational ideals can be challenged or reinforced. Teachers also grapple with balancing their educational values with the demands and implications of digitalized education, recognizing that educational spaces are never neutral.

How teachers are trained and how they view technology also impact their engagement with technology and their professional subjectivity, identity, and agency. While the digitalization of education may not fundamentally change who teachers are, it affects how they perceive themselves, their roles, and their interactions with others, including students, and with technology in the classroom.

My second research question is: Despite the oft-touted democratic nature of digitalized education, how do teachers perceive its potential for fostering participatory agency to best support their students and their own praxis? Connecting Digital Craft to democratic ideals, this question looks at how teachers view the role of technology in promoting or hindering democratic engagement in teaching and learning. It explores how teachers' identities, choices in technology use, emotional responses to digital tools, and educational ideals inform their perceptions of educational agency. By exploring these connections, I hope to provide insights into how teachers navigate the complexities of digitalization and their efforts to create democratic educational spaces.

Digital Shifting came from codes such as Time, Changes in Technology, and Space and Material. Digital Shifting explores how teachers reflect on the changes that have occurred over time to the hardware and software they use and the impact the changed environment and materials have had on their perception of time, teacher work, schools, and learning. Digital Shifting reveals critical points in teacher narratives and connects to socio-economic frameworks. I decided to use the term *shifting* as it signifies an ongoing yet sometimes invisible evolution.

Digital Shifting relates to the research aims by examining how teachers navigate the changes brought about by digitalization. While teachers adapt to digitalization, they are simultaneously restructuring their teacher roles, subjectivities, and agency. Digitalization's challenges and benefits and changing expectations can influence teachers' agency and perceptions of their professional expertise. Traditional teaching methods are supplemented or replaced by digital tools, which create fluctuations in teacher subjectivity and agency. As subjectivity is fluid from a post-structural perspective, these fluctuations are not 'abnormal.' Instead, understanding how, why, and to what ends they connect to digitalization is central to this project. Teachers' perception of participatory agency is fused to how they traverse the changes in time, technology, space, and materials. Learning about how teachers perceive the potential of digitalized education to foster participatory agency can highlight their adaptive abilities, the

evolving dynamics of teaching and learning in digital environments, and the possible changing educational aims in digitalized education.

Situated in the digitalization of education and neoliberalism, Digital Craft and Digital Shifting were formed by foundational concepts. The digitalization of education, rooted in technological advancements and virtual platforms, intertwines with neoliberal policies that emphasize marketization and individualism. These perspectives serve as lenses through which both Digital Craft and Digital Shifting are analyzed and interpreted, highlighting their intricate connections to broader socio-political contexts, as addressed in the next section of this chapter.

Subjectivity, identity, and agency are significant constructs within this research project. Subjectivity is encompassed in the complex lived experiences shared through teacher narratives about their roles in an ever-changing technology and digitalization of education. Identity is fluid and multifaceted and intersects with Digital Craft and Digital Shifting. Identity helps illuminate individual narratives of teachers and their understandings of self. Agency is also found in both Digital Craft and Digital Shifting, as it highlights how teachers interact with their pedagogy and curriculum over time and space.

I explore Digital Craft and Digital Shifting through a framework of relational ethics. Power relations become an important consideration, highlighting the complex relations of ethical engagement and digitalized educational contexts. I compare insights from various literature, exploring areas of convergence and divergence to help me understand the implications of the two themes. This chapter explores Digital Craft and Digital Shifting in relation to the digitalization of education and neoliberalism, subjectivity, identity, agency, and relational ethics to offer insights and reflections.

Intersections between Digitalization, Neoliberalism, and Educational Practice

The digitalization of education not only restructures pedagogy and school structure but also impacts teachers' roles and identities. This process is part of the themes of Digital Craft and Digital Shifting. Digital Craft emphasizes the reflective and ethical dimensions of teachers' integration of technology into their practice, highlighting both the challenges and benefits they face. Therefore, Digital Craft encompasses teachers' subjectivity and identity within the evolving

digitalized educational landscape, and as they change the way they work, it impacts how they think about their work and therefore their subject position. While the teachers in this study acknowledge the contradictions in technology as both a benefit and a drawback, its impact on their identities is perceived as small. Nevertheless, it shapes their professional roles and educational practice, and their subjective experiences. Teachers are, therefore, navigating the advantages of technology integration, like its streamlining influence on some communication and the challenges it presents to their pedagogical values and methods. The digitalization of education affects teaching dynamics and teachers' views of their subjectivity and agency within power structures. Digital Shifting explores the temporal and material aspects of the digitalization of education and constant new technological integration. Digital Shifting explores how teachers view the changes in hardware, software, and learning environments over time. This integrative progression redefines perceptions of time and teacher work and influences the means, aims, and goals of education and learning. The digitalization of education is tied to systemic socio-political movements such as neoliberalism, which prioritizes marketization and standardization over democratic outcomes, reinforcing social inequalities and undermining teachers' views of their work and professional values.

Technological Integration and Educational Ideologies

During the interviews, the pandemic naturally became a focal point regardless of my initial questions. It represented a pivotal data point, highlighting a significant surge in technological dependency that felt necessary to sustain some of our connections to work and learning. The zeitgeist of confusion, stress, and fear during the pandemic also accentuated this technological boom, which, without a doubt, resonated deeply with teachers, and it came out during their reflections. Overall, the teacher participants expressed that the pandemic was an unprecedented time, that it was unique, challenging, stressful, and accelerated the existing technological influx. Digital Craft connects to these teacher narratives on technology integration and the digitalization of education. It shows that digitalization and the integration of technology are beneficial in some ways but also challenging as they impact teachers' emotional well-being and professional identity. Steve said, "COVID was, without a doubt, the most unique set of circumstances and the most challenging set of circumstances I ever had as a teacher." Marie aptly stated that she thought that the problem with the pandemic "was that it accelerated what

would have happened already [with digitalization].” Maude characterized teaching during the pandemic as "high pressure," and Bobby pointed to the learning belittlement during that time as "the spring was kinda a wash." Steve also summed up how he felt about the pandemic being a learning curve, stating, "So COVID was what really did it. I was the old dog. I learned a new trick."

Pete reflected on the inflation of technology and digitalization during the pandemic by saying:

> I think face-to-face is even more important now that we've kind of jumped that - just jumped this rope and that - Well, this is an experience we can do now; and you've started to see that I think more in the high school level than you would have before COVID.

Pete's sentiment describes a positive impact of the pandemic and the technological boom that came with it - that teachers and students know that they can deal with complicated situations, with the unknown, and even embrace change, which makes them stronger. Phoebe told me about the overwhelming impact on teaching methods:

> Once the pandemic happened, it was, oh, my gosh. Now, everything we're teaching actually does have to be available to students electronically. Every assignment had to be written so that they could access it that way and complete it and submit it online. And it was overwhelming, and it was hard. It was hard.

James highlighted the lingering impacts of the pandemic on educators, noting, "It's like the last few years have taken a toll. It really has. I mean, a lot of teachers are just, you know - I remember, like it was the first week- the first week - a couple weeks of school, teachers were already feeling like they're burned out." Syd expressed her concern about the increased focus on mental health and how it impacts students, saying, "I want to connect with students, but since 2020, there's so much feeling mental health, mental health, mental health. And so everything is diagnosed now. 504, I have anxiety. I have the feels, feels, feels." Syd worries that the increased attention to mental health has impacted how students view themselves, not as active subjects but as passive objects that are recipients of diagnoses, which permits them to disengage with critical thinking and effort.

In their reflections on the impacts of the pandemic, these teachers provide their views on these unprecedented challenges and transformations in teaching and education. The increased technological integration and digitalization were accelerated, alongside heightened awareness

and concern about mental health issues. These changes show teachers' ability to be resilient and to adapt while also showing the ongoing need for changes in our educational approaches to help teachers and students. However, the interviews also show that fear, anxiety, ambiguity, and uncertainty about technological integration into education did not start or stop with the pandemic.

James shared that the worst thing to happen to teaching in the last ten years is "the internet and social media and cell phones. It's created a toxic environment that's led to lots of problems." Phoebe reflected on the first time ICTs were introduced with the expectation that teachers would use them years ago, stating, "It felt like the gates of hell had been unleashed… when it was like, seriously, all these people are sending me messages rather than us just talking to each other." This sentiment was elaborated as Marie reflected on the progression of added ICTs in her district through this story:

> So I started before email was a thing, then email was a thing, so it was like my third year teaching, and they said, oh, we're going to get email, and we'll never have to put anything in mailboxes anymore. We're never gonna have to do this or do that. Now I get memos and an email. So I'm like, the mailbox doesn't stay any emptier than before the email. And now I have three emails to keep track of my personal, work, and when I take classes, I have to check that; that's just more. It's not better. So sometimes I think technology is just more work, more things to do that sometimes feel like for the sake of doing them instead of like for any – well, this is what everyone's doing, so we're gonna do it.

Pete shared that he thinks technology is scary. "I think it's even a little scary for us." Showing that these feelings and thoughts of fear, anxiety, and uncertainty are broad and not bound to specific groups of people. Pete's acknowledgment that technology can be scary to people highlights that these are not isolated incidents but are shared among many, like James and Phoebe. Together, these teacher perspectives illustrate a consistent theme of discomfort and unease with the impacts of technology integration and digitalization in teaching and education. Many teachers struggled with the practical implementation of remote learning tools, making them feel overwhelmed or inadequately prepared. However, the pandemic also positively impacted students and teachers. Teachers learned more about digital tools, pedagogy, and methods, while evaluating their views of educational aims, and found new tools to engage students. The pandemic did not start the concerns about digitalization. These reflections also

show the paradox in technological infusion and digitalization, and within this paradox also lie issues of digital surveillance and privacy issues in educational spaces, which impact teachers and their students.

During the interviews, the teacher participants commented on the changes in the hardware and software they have used over the years. They commented on materials like articles and books to digitized reading materials, overhead projectors to CleverTouchs, face-to-face questions to email and text, and software of games and platforms. Overall, teachers are vividly aware of their current embeddedness in the digitalization of education through their past experiences.

Syd reflects on the fast pace of technological change: "But in the last seven years, drastic change… every year you learn new platforms." Her words here show how teachers continually adapt to digitalization, traversing the changing landscape of educational technology. Bobby reflects on the changes she has gone through during her tenure and emphasizes the transformative impact of technology, "I feel like we had to completely change." Bobby expresses how technology is not only a tool but a force that influences her educational practices and spaces, mainly for the better. Bobby further thinks about her changing views of 'older' materials: "I think being completely digital also reminded me... it has also brought about an appreciation for like paper and pencil assignments." This twofold perspective highlights the coexistence of traditional and digital educational ideologies. Pete states that the past had multiple limitations, but the present is more adaptable, "I wouldn't have been able to do that on a whim 15 years ago". He sees the flexibility of specific technologies such as CleverTouch and digitalized tools as adding flexibility to teaching methods. However, Pete also commented on the converse - highlighting again the paradox of digitalized education, "I think… when I'm in the classroom and somethings not working, I can change it up, you know, right in the moment or the next period" showing that he also feels there is an immediate adaptability to teaching situations that are not using or embedded in technology. Later in the conversation, he contrasted this previous statement, "There's kind of a concreteness to the online education world that you don't have in the classroom." He explains that he feels online educational spaces are more rigid in comparison to a more fluid view of face-to-face teaching.

Phoebe sees the educationally liberating aspects of digitalization and technology, saying, "with all this technology, there are so many ways we can engage students; it doesn't need to be

within these walls, within an eight-hour day." Others, like Maude, feel pressured to embrace technology for education, even when its necessity is questionable: "It's constantly, 'well, just do that little thing because it's so easy. Well, just do that thing because it's so easy. Well, just do that. Just do that. This will make it stream. Just do that' " (Maude). She highlights the ongoing push for technology to streamline and create more efficiency in education.

Online gradebooks are ubiquitous in K-12 education. They are not simple repositories for grades, but rather, they add a connection between teachers, students, and parents and add a bent to the temporal nature of teaching. When online gradebooks first came out, Phoebe reflected on the mood of her fellow teachers and herself, stating, "We thought that was the end of modern civilization because parents could not possibly understand our gradebooks," which highlights the oft initial skepticism and resistance toward new technologies in education. These grade books, whether ProgressBook or other software, reflect a larger societal move to instant access to information and heightened expectations regarding transparency and engagement in education. However, some teachers have mixed views of these tools. Steve promotes ProgressBook as one of the most impactful things in his teaching career because it makes grading simpler and more organized, and it can function as a basic communication device between teachers and their students and families. However, Steve does note the changed expectations for him because of his use of ProgressBook, "parents now expect, *they expect* access to their kids' information, and *they expect it instantaneously*" (Steve).

As with gradebooks, other materials have evolved and continue to do so with digitalization. The teacher participants reflected on these materials. Maude reflected on the early stages of her career and the gradual beginning of more technological integration, "at that time, we just had books. We might have had a DVD or a VHS tape." This is comparable to Syd's memory of whiteboards as the most advanced technology they used when she started teaching. Such observations show the speed at which technology has changed to juxtapose it to the speed at which technologies change now.

Moreover, Marie explained that she took classes about using overheads and slides and now uses Google Docs more quickly and efficiently: "I can pull up my GoogleDoc from last year and make a copy. Make whatever changes you have." Her experience shows the evolution from analog and traditional to digital instructional tools, showing how digital tools streamline efficiency. Steve noted, "I still use a lot of primary sources. I'm much more digital, but the

materials really haven't changed." He shows that while integrating digital tools, he still utilizes primary sources through a digitized platform. This seems to show that technology is a facilitator of pedagogy rather than a transformative force. Pete describes a similar process, "we totally went away from textbooks to using Canvas as the textbook." This shows how technology is redefining conventional practices and materials, further aligning with educational accessibility and management.

Bobby emphasizes the importance of AI in English education, as she can see it as both a concern and an imperative. She states, "AI is a big one as an English teacher, because we have to think of ways to incorporate it." This perspective shows the need for teachers to adapt to new technologies that are relevant in the classroom today, as they were not two years ago. Phoebe commented on the evolution of email, from mainly a source to communicate with others to how she has adapted it as a "post-it note," illustrating how digital platforms change as their users and the users' needs change. Phoebe's analogy shows how even older, yet traditional digitalized methods can transform into more efficient methods - or simply different methods.

These perspectives from teacher participants highlight the impact of the pandemic on the digitalization of education, especially in how it sped up technological integration into K-12 classrooms. Teachers have diverse perspectives and reflections on these changes, highlighting the process's benefits and challenges. As the pandemic was an interesting data point to think about technology, it was not the genesis or the end; perhaps it was a catalyst that intensified pre-existing anxieties about technology and the digitalization of education while showcasing its transformative potential. This paradox reflects a complex educational and societal space where digital tools enhance but also create professional and emotional challenges for people.

Neoliberal Education Policies & Digital Surveillance

During the interviews, there were times when teacher comments made me relate them to conceptions of neoliberalism in education, even as the teachers did not address neoliberalism directly. Neoliberalism is a dominant view in education reform and comes in policies prioritizing marketization, privatization, accountability, and efficiency (Levin, 1998; Ball, 2003). Neoliberal policies have influenced educational spaces worldwide, as they are oft supported by politicians from various ideological views (Ball, 2003). Driven by a neoliberal agenda placing value on efficiency and standardized outcomes, the integration of technology and the digitalization of

education is exemplified. Teachers, and specifically those in this study, maneuver through the challenges posed by neoliberal reforms; they feel considerable pressure to conform to external demands. Bobby emphasizes that the growing emphasis on technology and digitalization has significantly impacted her curriculum decisions, and she has had to adapt her teaching approaches. This type of adaptation and navigation shows that neoliberalism prioritizes adaptability and efficiency over pedagogical autonomy and decision-making because teachers are made to adjust their practices as fast as possible to meet quantifiable outcomes (Means, 2018).

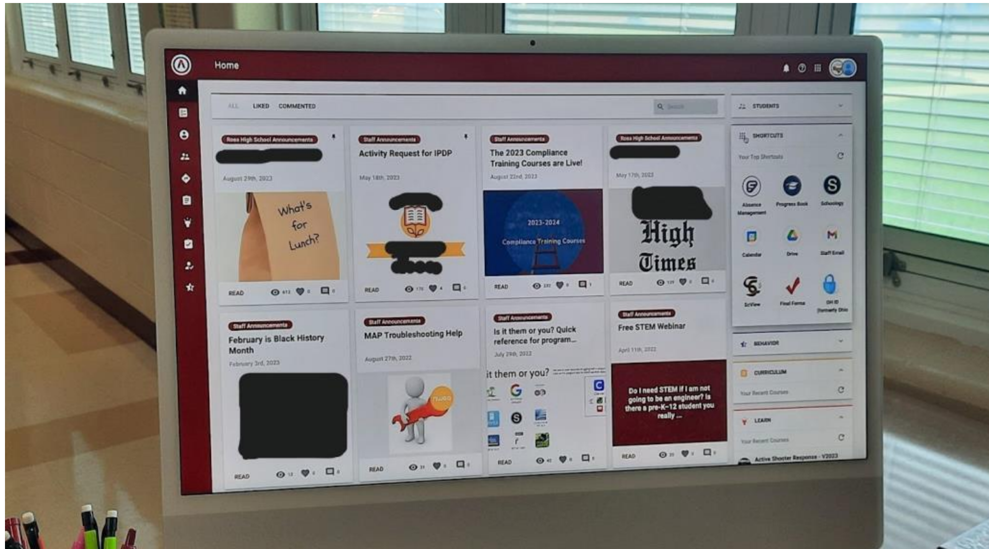
Syd's experience exemplifies the tension between compliance and pedagogical autonomy. She indicates that despite the school's policy favoring online testing, she offers her students paper-pencil tests as she believes they better showcase student learning and align with her pedagogy. Syd's approach illustrates how teachers resist and negotiate the neoliberal emphasis on standardized digitalization methods while adhering to institutional policies. This space for resistance allowed Syd to maintain a sense of professional satisfaction and pedagogical integrity, even as she conformed to the broader systemic expectations.

Neoliberal education policies also influence educational institutions by focusing on data-driven accountability. Pete highlights this concept by saying, "administration uses it [various digitalization] for numbers… For administration, it's very much about data." This makes sense since the school's funding is tied to their data reporting. Pete's thought shows that neoliberal policies promote a culture of measurement and quantification, which are part of educational goals from market-based reforms sustained through measurable outcomes like test scores and graduation rates (Means, 2018). This type of educational goal diminishes the role of teachers as autonomous professionals and instead stresses the teacher's role in achieving predetermined metrics set by administrative bodies.

Marie's experience further exemplifies the conflict between neoliberal educational policies and teacher autonomy. She shared that her district mandates teachers maintain their Schoology sites and physical classrooms. Marie also shared her desktop with me to show how her district's LMS is set up.

Figure 2

Marie's Dashboard



While she finds the LMS useful for streamlining bureaucratic processes, she also maintains that there are pedagogical reasons to resist over-reliance on digital tools. Marie explained:

> I find that handwriting uses a different kind of thinking than typing, so there are certain things I want them to handwrite because the physiology of it makes the brain work differently. So they're used to composing by the keyboard, which is more letter by letter, whereas handwriting is more word by word. I wanted to go back to handwriting, too.

This illustrates how Marie navigates the neoliberal emphasis on digitalization and efficiency by incorporating traditional methods into her teaching. Despite the pressure to conform to the LMS requirements, Marie makes a pedagogical choice to use handwriting to engage different cognitive processes in her students. Her approach highlights the ongoing negotiation between adhering to institutional policies and upholding personal and educational philosophies in a neoliberal context. This resistance and adaptation reflect the broader struggle of educators to maintain professional integrity while meeting externally imposed demands.

To further this, Pete expresses his dissatisfaction with grading, "I hate grades. You know, if you're learning it... some parents, even students, are like, 'That's what I got to do'." This shows his frustration at how neoliberal reforms prioritize quantifiable outcomes, here in the form of

grades, over learning itself - which is seen in the adaptation of students and parents to this performance metric and standardization (Ball, 2003). James describes the implementation of educational technology ProgressBook, as:

> It was meant to be like--it was like this silver bullet that, you know, parents are going to keep track of what their kids are doing and we're not going to have any more Fs because teachers--teachers will post the grades and parents can look at it.

Instead, it is just another tool to add to the workload - or paradoxically the teacher's toolbelt. Although it was meant to fix all the problems, the issues persist.

Furthermore, the digitalization of education and the heightened integration of technology into education reflect neoliberal agendas. Bobby described her experience of feeling the pressure conveyed to teachers, saying, "It was like TECHNOLOGY, do as much technology," highlighting the neoliberal push for technological solutions to educational systems to improve productivity and competitiveness in education (Means, 2018). However, Marie shows a possible drawback of this approach, "we're so focused on: 'we've got to be right, we've got to have the grade, which is heightened by the technology, the filters." Marie suggests that this focus on achieving perfect grades and conforming to technological filters of perfection might lead to neglecting important pedagogical aspects that do not align with neoliberal ideals, ultimately undermining teacher professionalism (Means, 2018). Maude furthers this line of thought, saying, "It all ends up creating so much more work… I think technology has changed that [ability to have face-to-face communication]." Maude is therefore critiquing technological integration under neoliberalism as it increases work, decreases meaningful interactions, and detracts from pedagogical and professional satisfaction (Blackmore, 2020).

Increasing teachers' workload and administrative duties burdens teachers under neoliberal policies and contributes to burnout or demoralization (Santoro, 2018). This administrative burden detracts from the relational aspects of teaching. Maude highlights this with her comment, "We are so over-communicated. It's freaking -- that is the thing that makes me want to quit teaching more than anything else in my entire life." Her reflection shows how these reforms heighten pressure on teachers, leading to dissatisfaction and challenges in maintaining meaningful relationships with students (Blackmore, 2020). Phoebe also reflected, "I realized I was just working too hard," highlighting the toll neoliberal educational policies can have on teachers; the pressure to constantly achieve something measurable based on your students can

lead to demoralization and undermine the quality of teaching (Santoro, 2018). Phoebe went on to explain:

> [Education] is really about relationships first and that if a kid doesn't have a relationship with you, they're not going to care about learning the material you're giving them. It doesn't necessarily mean they would love or hate English based on their relationship with you. But they're not going to care about doing that assignment, and they're not going to care about the time spent in that particular course with you. The teacher is the threshold. And I realized if I wasn't having fun, they were not coming along. And so give up the extra hard work mentality. Get rid of it. Engage. Find a way to engage them… have fun.

In her reflection, Phoebe highlights a shift in her approach to teaching. She explains that she believes the core of education is building relationships, arguing that if a student does not connect with their teacher, they will not be invested in learning course material. Phoebe's perspective reflects a response to the pressures of neoliberal educational systems, which often emphasize competitive outcomes and efficiency (Larner, 2000). Rather than prioritizing grades or teacher evaluations, Phoebe aims to create meaningful and enjoyable learning experiences. Her approach contrasts with the impersonal nature of online gradebooks and highlights the importance of connection and care in teaching.

> I remember when we first had an online gradebook. We thought that was the end of modern civilization because parents could not possibly understand our gradebook. It was a concern because you had to really think about how you entered grades because it was for a whole audience. It wasn't just your own little thing. It was the parent and the child who were going to see it. (Phoebe).

She explains that she now loves it because parents and students cannot accuse her of not updating them immediately if the child fails, which allows for immediate access to information and a shift in accountability. While I understand and even agree with this sentiment, it is also metaphorically reminiscent of Foucault's panopticon (1977). In Foucault's theoretical model, prison inmates are constantly being observed without knowing if they are or not. This constant possibility of visibility creates self-disciplinary measures amongst inmates to conform to normalized behavior. For Phoebe, as she embraced the online gradebook to prevent accusations of non-transparency of student grades, initially, it caused her concern, "the end of modern civilization," because her grading practices were always visible and able to be surveilled. It is

interesting that her reasoning centers on the fact that parents cannot accuse her of something, which further shows the impact on accountability. This reflects, in a metaphorical sense, the panoptic view where there is a constant possibility of being surveilled, and this has the possible impact of changing how people grade students - teachers must be more careful about this practice as it is now for an "audience" and not a way for the teacher to gauge and keep records of student work. It also makes teachers more sensitive to time and having to have grades updated immediately, for the viewing of others.

Marie tells a story about the challenges of having so many students listed as needing individualized documented plans and the expectations for their record keeping. She describes using the system within Schoology for this purpose, walking me through all the students listed, then how their plans are connected to them, showing their preferred learning styles and interests, areas of strengths and weaknesses, and a dropdown for their individualized goals. Since the goals are listed right there, she does not have to generate goals for the students herself, which is great because it saves her time, especially since so many of her students have such a plan. She quipped, "It could be worse" when describing this process, as she must do it either by hand or within this system due to the state's 'unfunded' mandates. This is a simple explanation of how to get work done efficiently. However, I see undertones of power/knowledge and a docile body (Foucault, 1977).

I see this dynamic of surveillance and normalization of behavior in Marie’s experiences with grading and documenting systems, which reflect disciplinary mechanisms that normalize or regulate behavior according to institutional or societal expectations. Marie uses Schoology to manage individualized student plans, which is reflective of a system of control whereby the system imposes a format (the organization and listing of students, recording their information such as learning styles, interests, strengths, and weaknesses) and offers a specific list of goals to which Marie must conform. This system will document and monitor Marie's work, tracking student progress based on her institutional standards. The docile body is a trained body that conforms to systems of control. Marie's use of Schoology through data entry reflects her internalization of the expectation to manage her student plans in a standardized way. This normalization ensures that her institution can efficiently track and manage her students’ progress to ensure they align with state-mandated policies. Next, Marie's story also shows the constant surveillance of disciplinary mechanisms. As Marie's work to document students is online, she is

constantly surveilling students through their progress and examination. At the same time, she is also constantly surveilled in her ability to track and monitor students. Finally, Marie's comment of "it could be worse" perhaps is a sort of acceptance of the disciplinary mechanism. Marie sees that using this system is inevitable within her educational system. As Mansfield (2000) explains of Foucault’s view of power, we are not adversaries to power; we are the very substance of power and serve as a conduit through which it manifests.

Reflecting on this section, some patterns emerge. First, teachers are constantly navigating the vast dimensions of technology integration and the standardization of desirable outcomes. The push for more digital tools and data-driven accountability goes hand-in-hand with and dramatically impact how teachers teach and what they must prioritize. While technological integration and digitalization promise efficiency and transparency, they also increase many teachers' workloads and sometimes detract from meaningful student-teacher relations. Many teachers feel frustrated with these evolutions. There is a pattern of feeling pressure to meet measurable outcomes and to put educational values on the back burner. The constant expectation for adaptation to external metrics can take a toll on teachers' professional autonomy and even create apathy. Despite these frustrations and challenges, while teachers seem to adapt, they also resist. Resistance comes in many forms; in some cases, adaptation or apathy might be that teacher’s way to resist. Adaptation and resistance are paradoxical forces constantly at play with teachers within digitalized education through neoliberal policies. There also seems to be constant pressure to perform, almost for an audience, which creates tension and newer stress for many teachers. Digitalization under neoliberal policies offers many challenges and benefits.

Within this context, Pete astutely observes:

> You have to know how to do it online before you can learn it. It's that whole, like, Bloom's Taxonomy thing. You have to have the safe space. You have to be nurtured in order to succeed. And I think we--I think colleges kind of throw these kids in there because it's--I mean, to be honest, it's a quick way to make money. And, you know, it's--you're not giving them that readiness that they need.

Pete, who teaches high school and teaches some college classes, reflects on the challenges his older students face when they are put into online learning evironemnts without adequate preparation. His comment, “You have to know how to di it online before you can learn it,” speaks to the frustration he feels regarding how students are expected to quaicly adapt to online platforms such as Schoolology or other LMS’, without being given the foundational skills fr

support they need to succeed. When Pete says, “ It’s a quick way to make money,” he is referring to the fact that many colleges and universities have increased their adoption of digital platforms for teaching, not necessarily because they believe in it’s benefits for students, but because it allows the ininstitutions to cut costs or generate revenue. In his view, the move to online learning environments has become more about financial efficienty – by moving students to digital platforms that require fewer in-person resource – than about providing students with the care, readiness, and nurturing they need to thrive.

Pete’s critique raises a larger issue within neoliberal educational policies, where profit-driven motives often overshadow students’ well-being and the relational aspects of teaching. He points out that the drive to save or make money through online education can lead to a lack of preparation, leaving students unready for the challenges of digital learning. This creates a scenario where students are effectively left to sink or swim, struggling in an environment that is not adequately designed to support their growth.

Exploration of Digital Craft and Digital Shifting through Subjectivity, Identity, and Agency

This section explores the relationship between subjectivity, identity, and agency in the context of Digital Shifting and Digital Craft. Subjectivity encompasses the internal and external influences that create a person’s perceptions and experiences, rooted in a fluid self-conception (Duarte, 2020; Bhattacharya, 2017). In contrast, identity refers to the specific roles and labels people adopt, reflecting their perceived social interactions (Britzman, 1992). Simplified, subjectivity is about the process of becoming and understanding oneself, while identity is about the established representations and categories of the self in relation to greater society. Agency then is the capacity to act within frameworks of power, self, and relation in social contexts (Biesta & Tedder, 2007; Fraser, 2009). This section analyzes teacher narratives themed as Digital Craft and Digital Shifting, exploring their identities, subjectivities, and agency amidst digitalization.

Navigating Subjectivity and Teacher Identity in Digitalization

"I think that through reading and writing, we can make students better, like global citizens" (Bobby). Bobby's thought here pulls out the conception of subjectivity as fluid and relational. Individuals are not isolated entities but are shaped by societal and cultural influences

(Mansfield, 2000). Bobby's belief reflects her professional identity as a teacher committed to global awareness and critical thinking, and those attributes are part of the subjective growth of her students. This shows that her teaching is part of a broader social and cultural discourse (Duarte, 2021). Bobby also states that the digitalization of education has "added so much more organization to what I do." This suggests that adapting to digital advancements informs professional identities and builds skills, such as organization. Power is not only about repression but operates through productive mechanisms that shape how people perceive themselves and their roles in society (Foucault, 1980). In the analysis of Bobby's comment, using technology for teaching procedures, especially in the bureaucratic sense, has enhanced her organizational skills and influenced her professional identity. This reflects Foucault's idea that power operates through technologies and discourses that define and regulate what is considered normal or efficient conduct. Bobby states: "Using those types of technologies give you more of a voice in teaching," which suggests that technology in education influences teacher practices and the agency teachers feel within digital landscapes, shaping their subjectivities and professional identity (Britzman, 1992). While Bobby's experiences and perspectives explore how technology has benefited her organizational skills and supported her professional identity development, Steve's experiences are more challenging, showing how digital platforms and integration can alter power relations while changing traditional teaching methods. Steve's experiences complicate the influence of digitalization on teachers' roles and identities.

Steve discussed his challenges being entirely online during the pandemic: "When you're totally digital, my job was so much harder… there's nowhere to pull [the students] aside to." Steve discusses how the shift to digital platforms changed classroom power dynamics by limiting his ability to use embodied disciplinary methods. This change can diminish his - or any teacher's - perceived authority and impact their subjectivity as a teacher, showing the influence of digitalization on educational practices and pedagogy, which is reflective fluid connected views of subjectivity (Foucault, 1977; Britzman, 1992; Mansfield, 2000).

Pete states: "I was always apprehensive with it [teaching]. My personality, I'm not very, you know, gregarious, I guess. And so, that was the kind of drawback." Pete's apprehension comes from his belief that his personality does not align with social norms for teachers, impacting his self-identification. According to Foucault (1977, 1980), people are constituted within power relations and institutions. In Pete's case, these norms influence his self-perception and role in teaching. He finds this apprehension heightened when teaching through digital

platforms, as face-to-face interactions developed over time made him more comfortable.

Pete also talks about what he loves about teaching, which is watching students' learning process and growth while teaching. He states: "It's watching them be so, you know, unconfident in the beginning and then going to that place where, like, 'Hey, I can actually do this'. " This sentiment signifies the potent process of subject formations within power structures, wherein confidence and self-perception are created through educational interactions. Foucault's idea of power as productive in shaping subjectivities is realized in this sentiment, as teaching practices add to the construction of student subjectivities while also, therefore, influencing teachers' sense of self and agency.

Pete reflected on a recent educational technology conference he attended, where he explored the implications and integration of AI into teaching and learning. "But the conference was cool because we talked about how we can use this as a tool rather than, you know, don't use this and then everybody runs out and uses it." (Pete). Here, we can see how the discourse surrounding the digitalization of education, and in this case, AI specifically, has implications for teacher subjectivities. Foucault posits that discourses define what can be known and how subjects position themselves within these discursive practices. Negotiating technology as a tool versus a constraint shows how teachers can navigate power and social expectations in their craft. Pete and Steve's reflections reveal how changes they face because of the increasing digitalization of their work affect power dynamics, showing how the shift toward digital tools and methods influences teachers' roles and experiences. Their reflections show the challenges teachers face and the broader implications of technology on their professional authority and effectiveness.

Regarding Digital Shifting and subjectivity, as time changes how humans interact with technology, human subjectivity is impacted, as subjects are "always linked to something outside of it - an idea or principle or society of other subjects" (Mansfield, 2000, p. 3). Phoebe reflected on how educators deal with more technology and digitalization, stating:

> I just can't believe this is the best we can do. But given that now, with all this technology, there are so many ways we can engage students, and it doesn't need to be within these walls, within an eight-hour day. Like I try to -- I really focus on limiting myself to a particular workday. But it does seem like there's just so much more. I don't know. I feel like this is such an old model. And technology, we haven't kept up with what the possibilities are.

Within Phoebe's statement, I found she critiques traditional educational models

constrained by time and space, envisioning technology's potential to engage students beyond the classroom. However, at the same time, she reflects on her need to set personal boundaries for her work; the flexibility technology might give her students would not be favorable for her life. This tension reflects a post-structuralist view of subjectivity as not fixed and continuously emerging with strain between what is desired and what is doable. This, therefore, impacts how teachers and students view their roles as teachers and students and what identities those roles embody within educational spaces. If she sees the possibilities for what the technology offers but simultaneously has to limit herself to hours that allow her to live outside of work, what does that tension do? What does that tension offer the process or 'becoming' of the self?

Sue, the only student teacher I talked with in this research, offered her view of how students view research because of digitalization. Sue said that she did a lot of library research as a student, and she came from a family that valued literacy. However, in her time student teaching, she found that her students look for "instant gratification" and that they "can't imagine looking through a source, taking the time. They just don't have the time. It's like they want it, but they want to do it right now. Right now. But they don't want to take the time to read." This indicates, through a teacher's lens, a shift in student behavior due to digital tools, where instant access to information replaces older, time-consuming research methods. Within neoliberal educational frameworks (Larner, 2000), efficiency and competition are the modus operandi. As Sue puts it, time is a luxury that both teachers and students are increasingly denied within the fast-paced, efficiency-focused environment of education in the digitalized context. This is reflected in what she sees as students limited ability to deeply engage in reading and research, as the pressures of immediacy and digital tools prioritize quick access over thoughtful exploration. Foucault's (1977) theory of disciplinary mechanisms, like surveillance and normalization, is also relevant to Sue's comments on her views of how student behavior has been impacted by digital norms. The constant connectivity and access to information people have led to self-regulation and conformity to digital practices. This mirrors Foucault's idea that people internalize social norms through such disciplinary mechanisms and regimes of truth. Sue's comments also resonate with Foucault's (1977) power/knowledge in that knowledge production is inseparable from societal power relations. In educational spaces where digitalization occurs, technology like ICTs and AI impact how knowledge is produced and disseminated. Sue's comments about students' reliance on digital sources for "instant gratification" show how digital tools impact knowledge production and subjectivities.

James comments that teachers must accept that students have cell phones in the classroom. He stated:

> Kids are walking down the halls with phones; teachers are walking down the halls with phones… kids are walking down the hall with their heads down, bumping into each other… I think it has altered space and time... I think technology, in general, has altered time. … It's like you … when we didn't have [gesture to cell] and… I have to check because I just got a text message. (James)

James examines how digitalization impacts social interactions and perceptions of time. This connects to Foucault's docile body, discourse, and subject formation (1977). It emphasizes that current social practices impact knowledge and influence how people behave. James' action of interrupting his speech to check a message illustrates how these disciplinary mechanisms operate and how people are affected by social norms and expectations. This shows that Foucault's disciplinary mechanism in the form of ICTs impacts interpersonal interactions and subjectivities concerning time management, time consideration, and social interactions.
Syd’s statement, "We can't stay away from it [technology- IoE, ICTs]. Yeah, it frees up time and space"- seems to reflect a recognition of the practical benefits technology offers. Rather than being ironic, she appears to be acknowledging how these tools, despite any challenges they might present, ultimately make tasks more efficient, freeing up time and space for other priorities. In this sense, their convenience makes it difficult to avoid or opt out of using them, even when there are reservations.

Bobby, Steve, Pete, Phoebe, Sue, and James' narratives help me conceptualize how the digitalization of education intersects with teacher and student subjectivities in a post-structural sense. Bobby and Phoebe express their optimistic views of what technology offers, which can enhance global engagement. In contrast, Steve and Pete expressed challenges from digitalization, such as their comfort and power relations. Sue's comments touch on broader changes in how people research and allot time to academic activities because of digitalization. At the same time, James shares views about how technology alters interactions between people and how perceptions of time are altered. Their views can reflect Foucault's concepts of power/knowledge, docile body, and disciplinary mechanisms that impact teacher subjectivities.

Tensions of Digitalization on Teachers: Balancing Norms and Values

Marie works with a cultural diversity alliance group at her school. In doing so, she was requested to document their work via pictures to upload to social media for the school. Marie has never had an interest in taking pictures, to begin with, but to be expected to do so to document the "good" work she and her students are doing adds a role and strain on her work. She stated:

> I just don't think about taking pictures. It wasn't important in my life… I just want to be there… I don't Facebook, I don't X or whatever it's called. I don't do any of those things because I know myself well enough to know I don't need to be spending an hour just scrolling on my screen. (Marie)

This highlights the competitive influence of digitalization on teachers' professional identity. She feels a pressure to share - or to 'compete' - to show her good work, when she prefers to be in the moment with her students and context and wishes to keep it as such, as it is not a part of the regular curriculum which she has to document and demonstrate excellence through grades and tracking.

Such a process illustrates Foucault's (1977) discourse and subject formation within power/knowledge, where the expectations and norms of documenting and sharing work on social media influence how Marie navigates her professional identity. Although the desired school practice is to document and share work via social media, Marie's reluctance complicates her role. Her value of the educational interactions lies in the relations themselves, no tin their use as content for promoting the school's success on social media, which creates a tension between her personal values and the school's normative discourse on success. However, as her professional role is part of her identity, she adjusts and adopts new practices, which is part of the conceptualizations of teacher identity (Rodgers & Scott, 2008; Britzman, 1992; Mockler, 2011; Bakhtin, 1986; Gee, 2001) and teacher professional identity (Britzman, 1992; Rodgers & Scott, 2008), as teachers' identities are embedded in social and cultural contexts, here the context being an age of social media and digitalization of education.

Marie also expressed concerns about how frequently students go on vacations during the school year. In contrast, when she was younger, and even as a young teacher, people typically only went on summer vacations. She feels perplexed, viewing this trend as symptomatic of a devaluation of education. To her, education has become a "necessary evil" in the eyes of the public, perceived as an unimportant hurdle. She is bothered by the emphasis on grades over learning, which she sees as one of the many reasons for education's devaluation. Despite the

benefits technology brings, Marie feels its prevalence has diminished the perceived value of education. She often must communicate the importance of learning to her students, but often feels unheard and misunderstood. This narrative illustrates the concepts of identity (Britzman, 1992; Bakhtin, 1986) and demoralization (Santoro, 2018) in action.

Marie's memories of her childhood and early teaching years reveal significant changes due to digitalization, affecting social norms and behaviors. These changes are integral to her identity construction both as a teacher and a person. The tensions between her memories of the past and the present embody the paradoxes and contradictions found in education, showing that identity is not fixed but constantly "becoming" (Bakhtin, 1986) with changing cultural, social, and educational contexts.

Marie is also aware of her role as a teacher in a larger political landscape. She discussed that she views technology to be valued more than interpersonal connections. This awareness emphasizes that her identity is formed not only by her personal beliefs but by the community and educational policies surrounding her. As Marie tries to convey her frustrations about education's importance to her students, it became increasingly evident that she understands how social practices and norms influenced her identity. Her reflections resonate with themes of demoralization (Santoro, 2018), illuminating her frustration with the declining social value placed on public education. This frustration is not alleviated by resilience, leading her to a sense of demoralization.

In contrast, James told me a story about how he views technology as a "necessary evil." He shared that he does not want to forbid any technology in the classroom because once you forbid it, it becomes more desired. However, he also sees many technologies, especially social media and cell phones, as "addictive drugs." However, he knows students are expected to use various platforms for schooling, as is he, even though he thinks they have created more educational problems than solutions. He also feels that many technologies are better suited for adult use because they are about "how they're managed." He loves to disconnect and be outside without devices. As a prior administrator and a tenured teacher, he, however, sees the trend in education for more technology use within K-12 buildings. "I want to be positive, but I also want to be realistic," he states, describing where he sees education within digitalization going. He does not see his values of research and time in the education system as he did when he started teaching.

James' perceptions of technology in education as a "necessary evil" reflect a negotiation

of identity (Britzman, 1992; Bakhtin, 1986). He sees technology as both evil and helpful, both an "addictive drug" but also somewhat necessary for current education systems and processes. This idea makes me think about the implication of requiring schools to use something - a technology - that people view as an addictive drug. It is an evocative intersection to this research and a path for more study. This creates tension between his values and his role as a teacher. From a post-structuralist perspective on identity, his work context continuously influences him, impacted by social structures and prevailing educational discourses. James' identity is influenced by how he responds and feels about societal norms and his specific role as a teacher in his district. James is also aware of his identity as a teacher and prior administrator and how his role is implicated in the community and world around him. He reflects on how his role as a teacher is imbued within the discourse and narrative of technology and the digitalization of education, which signifies a political identity awareness (Britzman, 1992). This identity awareness may be part of James' ability to stay in education as long as he has, even with the tensions he feels with its evolution. James' teacher identity also becomes evident in his agency and reflexivity. During our conversation, James often commented on the political aspects of technology and digitalization in educational and social contexts. He is able and comfortable voicing his professional authority and critiques of these processes as they become more and more normalized, and his views are in tension with them.

When interviewing Steve, he stated that teachers now must also be technology teachers, as others also stated in their interviews. Steve elaborated that as a teacher of any subject, you have to be able to troubleshoot basic technological problems at any time.

> Sometimes our computers don't work. Inevitably, if I give a test or a quiz digitally, inevitably someone's computer crashes, someone's computer stops working, someone can't access it for some reason you don't know… Sometimes, technology is a barrier. You have to know how to use it. (Steve)

Within Steves's quote, I see a connection to reflexivity as a part of identity (Mockler, 2011; Gee, 2001). As Steve acknowledges that technology can be a barrier, he also acknowledges a teacher's role change and teachers' reflexivity on how these technological barriers impact how he teaches, what he teaches, and what he must give time to, which in turn impacts a teacher's identity. Steve's sentiments note how adaptive teacher identity must be within digitalization and technological shifts. Teachers must constantly reevaluate what they know and do not know about how technology works, how it applies, and how students use and understand it. This reevaluation

is part of teacher identity's fluid and dialogical aspects (Bakhtin, 1986; Gee, 2011; Mockler, 2011; Britzman, 1992; Rodger & Scott, 2008). Steve's comment is also an example of teacher agency. Teacher identity involves agency (Rodgers & Scott, 2008; Britzman, 1992), which is about teachers' ability to act purposefully and have authority in their roles.

Marie, James, and Steve's reflections highlight their experiences of teacher identity within the digitalization of education. Their experiences show tensions between their values, institutional norms, and educational systems. This illuminates the continuous parley in professional roles in an increasingly digital educational environment. In the next section, I explore Digital Craft and Digital Shifting through the conceptualizations of agency.

Agency in the Age of Digitalization: Pressures and Possibilities

"So, I've never chosen to teach digitally, I suppose," Bobby stated when I initially asked about her digital teaching experiences. Marie stated, "I'm not sure I get to make those decisions," with a laugh when I asked her what platforms and technologies she would choose to keep. This comment reflects the reality that the influx of technology is not a choice for teachers, as the system constantly adds new platforms, limiting their agency. There is no choice if you must keep up as Syd reflects on this process, saying:

> I got to keep learning [about the technologies], but I don't want to… I just see things are quicker, keeps all of us current… that's all current with where we are as a nation, on the globe. So that is where we are. That's where we're headed. So we have to use it.

Syd states that she knows many people are unwilling to adapt, but that she is because it is where we are, and there is no use fighting against it. All eight teachers interviewed spoke of this in some way, either through the pervasiveness of cell phone use in school or the mandated use of educational platforms or programs. The mandated use has become something they do not feel is possible to push against, so they find ways to cope.

Another entanglement of teacher agency is seen through Maude's reflection on the push to always be in the classroom, never away from the students. Maude reflected on how, as a teacher, she used to get to know her colleagues through conversations in the hallway, waiting by her door for her students to enter and talk. They would talk about the mundane, about their day. However, she felt this was a process of getting to know them. Now, with the availability and prevalent use of digitalization, she feels more pressure to be in the classroom at all times to be present and observant of her students, and all communications with colleagues are relegated to

the digital realm. Maude's reflection shows the reality of the everyday for teachers: a push for constant vigilance in the classroom and overshadow interactions with colleagues. While intended to enhance communication, digitalization can diminish informal exchanges that foster friendships and collegiality. This push can create a culture where teachers feel that they must prioritize monitoring students over creating relations with those students, or their colleagues. Maude stated:

> There's liability issues. What if somebody was vaping in your room? What if a kid touched another kid inappropriately, and you weren't there, and you were supposed to be there, and the bell would ring? But if anything were to happen, it's like you'd get in trouble.

This reflects the reality that colleagues' interactions are often overshadowed by the need to monitor students closely to avoid scrutiny.

Maude's comment raises concerns about the increasing reliance on digital communication in teaching. If teachers are expected to communicate primarily through email or cell phones, they become more physically available in classrooms, which reduces opportunities for hallway conversations. This move intensifies the exception that teachers must always be available and vigilant around students, introducing new liability dimensions and institutional scrutiny. While teachers have always had to monitor their students' behavior in classrooms and hallways, digital communications amplify these pressures. With the emphasis of being 'always on,' teachers often feel obligated to be aware of both in-person and online student interactions. To clarify Maude's perspective, she mentioned that while she appreciates the demands of online discipline tracking, such as updating student points in the online school system for simplifying the disciplinary process – it also consumes valuable time. This requirement not only limits her interactions with her colleagues but also impacts the way students engage with her, and she sometimes feels tethered to her computer. The concern for this liability can be heightened by the immediacy of digital platforms, creating an atmosphere where constant vigilance becomes normalized.

The constant connectivity and communication expectations can lead to more stress for teachers, who might feel that they are under constant surveillance to avoid potential issues. This surveillance can be seen as a mechanism of disciplinary power that shapes teachers and student behavior and can lead to internalizing these types of norms. With the availability of digital communications, the expectation for quick contact heightens these mechanisms. The digitalization of education also makes teachers responsible for the physical supervision of

students' behavior and the surveillance of their digital interactions. While digital tools aim to foster engagement, they also create an expectation for teachers to be perpetually available, complicating the possibility of fostering peer relationships and ensuring student safety and good behavior.

It is important to remember the legal constraints that limit the extent to which schools can regulate students' online behavior, especially outside of school hours, "off-campus," and off-school-controlled platforms. Schools generally cannot enforce control over students' personal online interactions. This legal limitation complicates the narrative around increasing teacher responsibility for supervising students' online behavior, especially as teachers also express concerns about the *miseducative* impact (Dewey, 1916) of students' technology use at school. Furthermore, this comment illuminates connections to teacher agency as theorized by Fraser (2009) and Habermas (1985b). Fraser (2009) conceptualizes agency as a collective action whereby dialogical understandings are necessary to challenge dominant power structures and that through this collective action, transformation can occur. Teachers are expected to control students' online behaviors, which can further limit the collective agency teachers have as they feel less connected to their colleagues because their actions are always expected to regulate both physical and virtual aspects of student conduct, although not in an official capacity. Habermas' theory of communicative action (1985b) posits that language and communication are necessary for people's agency and in the creation of social change. While digitalization offers new pathways of communication, it also has complex aspects concerning authenticity and transparency. Maude's comment shows that teachers must always be a watchdog in physical and digital spaces, limiting their ability to interact with anyone. This surveillance approach can limit communicative action where meaningful dialogue and mutual understanding can occur without the fear of repercussion.

Phoebe comments on the "layers of e-news" teachers receive, stating, "All the things that go out, all the information, I feel like nobody ever knows anything." This resonates with the information overload many research participants discussed, increasing ambiguity in consensus and understanding. In this research, agency is conceptualized as peoples' actions within complex, and changing social and institutional structures (Biesta & Tedder, 2007; Emirbayer & Mische, 1998). Subjects engage with their environments through actions that reflect their values. Phoebe's comment reflects the inundation of external influences that complicate their attempts to assert and feel agency. Fraser (2009) elucidates that meaningful social change coordinated

efforts, but such action is hindered when clarity is lacking. Habermas' (1985b) communicative action similarly emphasizes the importance of dialogue and critical reflection in fostering agency. I view Phoebe's observation as a critique of the ambiguous practices of information dissemination in education. For Habermas, the ideal of communication is open and honest dialogue, free from domination; however, achieving clarity with all the "layers of e-news" is a struggle. This struggle eats time and detracts from other critical aspects of participatory agency, such as equitable participation in social and political decision-making processes (Fraser, 2009).

Phoebe's quote highlights the complex and nuanced issues subjects come into contact within connection to agency. In this case, the information abundance does not equal clarity or empowerment. Instead, it invites apathy and confusion.

Pete brought up another example where I see agency reflected in how digitalization impacts his pedagogy. Pete states:

> When I'm in the classroom, and something's not working, I can change it up, you know, right on the moment or the next period or whatever. Whereas it's set in stone kind of in an online environment. And, yes, I can modify it a little bit as we go. But once you start tinkering with it, everybody's like, "What's going on?" You know? It's like, "Why did you change this?" or "What does this mean?" And so there's kind of a concreteness to the online education world that you don't have in the classroom.

For example, suppose Pete teaches an English lesson in a physical classroom and sees that his students are not engaging or grasping a concept/topic. In that case, he can instantly switch to a different activity or explanation, such as a different line of questions, group work or a more hands-on project, in attempting to re-engage them. However, when in an online environment, especially an asynchronous environment, if he realized mid-week that an interactive module is not working for his students as he intended, making adjustments and communicating those adjustments without creating confusion or concern for the students can be more awkward and burdensome. His students might be confused if the online materials suddenly change, like if a quiz or assignment format is altered and the explanation for it is unclear or totally accessible. This can lead students to feel the need to concentrate on the format and structure more than the relational or content learning, disrupting the flow of the class. While such disruptions are also part of being in a physical classroom, the way they are part of virtual environments takes on a different layer that needs attention. From Pete's view, physical classrooms offer more flexibility than rigid structures of online education.

Pete's insight brings two aspects from Fraser (2009) to mind. First, I will explain how I read the quote. Pete suggests a difference between flexibility and adaptability in brick-and-mortar classrooms versus online education spaces. In the brick-and-mortar setting, it seems Pete feels like he can make real-time adjustments; as he says, he can "change it up" based on the immediate feedback he gets from students. This exemplifies flexibility, which allows for an adaptation to the needs of his class. However, in the online context, Pete feels students require a more structured approach. This is because asynchronous communications can confuse students, especially when explaining something new. As Pete suggests, any asynchronous change might disrupt the flow of his class online. Secondly, participatory agency is about equal rights and equity, "substantive equality" and participation in decision-making. Within Pete's educational context, this would mean that all participants, including Pete himself (and his students), would have meaningful opportunities to change/contribute/adapt/add to/ subtract from the learning space. Pete, however, reflects that such a "participatory parity" (Fraser, 2009) is more of a challenge in an online setting as changes are less able to be fluidly enacted and could be more disruptive to a stable, predictable environment. To me, this means that Pete feels that online learning platforms are more limiting of participatory agency.

The comments from participants in this section on agency highlight how teachers deal with the digitalization of education. These teachers feel pressure to use it while also envisioning its possibilities and challenges. This impacts how they can interact with their colleagues and how they monitor their students. Teachers also struggle with the inundation of information and find it harder to change lesson plans presented in an online synchronous classroom while also appreciating the access to more information and the ease of changing digitally saved lesson plans instead of starting anew. This section highlights the challenges and the possibilities digitalization brings into teaching that influence teachers' pedagogy, collaboration with others, and agency. These challenges and opportunities that digitalization of education brings to teachers, as I have laid out through the narrative of the participant teachers in this section, help draw us closer to exploring these teacher narratives through relational ethics using both the Digital Craft and Digital Shifting themes.

Exploring Digital Craft and Digital Shifting through Relational Ethics

Relational ethics provides a lens to look at human and non-human interactions, and for this research, in the digitalization of education. This section applies concepts from relational ethics to teacher narratives in Digital Shifting and Digital Craft, illustrating the complex connection of digitalization, teachers, and democratic educational ideals. Integral to relational ethics are the ways teachers relate to their students and reflect on those connections. This section draws on Nel Noddings, bell hooks, Paulo Freire, and Emmanuel Lévinas to emphasize care, empathy, and connection in education. Together, these theorists promote ethical engagement with the self and others to foster agency and democracy. Dewey's (1916, 1930) conception of democracy as "associated living" aligns with relational ethics by advocating for active participation and respect for diverse perspectives.

Relations in Education

Steve wanted to be of service to his community and make an impact on its citizens; this motivated him to become a teacher. One aspect of this value is the interaction with students. He stated:

> One of the biggest problems with digital education is there… there is no personal piece at all to it… They [the students] don't get to know me, and I do not get to know them. Like it's really just transactional, it's not personal. (Steve)

He described his teaching online as having a total "disconnect" from students, making his job much harder. However, he also values the technology in his classroom, stating, "I need a CleverTouch. I need my computer. I need books. I need resources."

Steve's reflections reveal his dissatisfaction with the digitalization of education in that it lacks a personal connection, which he values most. Relational ethics emphasizes the significance of relationships and interaction in ethical decision-making and moral development, which Steve's thoughts illustrate. Relational ethics highlights the relation's element and quality; in this case, a relationship between student and teacher significantly impacts educational outcomes.

Care ethics suggest that caring relationships are foundational to moral education, promoting empathy and ethical decision-making in teachers and students (Noddings, 1984). As Phoebe stated, if there is no relationship between the student and yourself (teacher), the student will not care about what you are doing in class. Therefore, the teacher, as an embodied presence

in a classroom is the threshold. Steve's comments support the conceptualization of relational ethics, which suggests that genuine, empathetic relations between students and teachers offer increased student effort, confidence, and, therefore, academic achievement (Lundberg & Schreiner, 2004; Ryan et al., 1998; Pascarella & Terenzini, 2005; Poirier & Feldman, 2007).

While Steve appreciates the digital technologies in his classroom, he is dissatisfied with the limitations and challenges they pose for interpersonal relations. This implies another digitalized paradox: while it offers tools, it can diminish the intimacy of face-to-face moments. However, digital spaces, while creating challenges, also offer unique forms of relational engagement. Digital spaces may provide an opportunity for expressions of alterity that are different from traditional face-to-face settings, which could enable students and teachers to engage with each other in new ways, despite the transactional makeup of these interactions. For some students, particularly those with disabilities, digital platforms can offer a more accessible and flexible means of connecting. For example, students with mobility impairments may find it easier to engage in online spaces where they can contribute without the barriers experienced in physical settings. Also, digital tools like text-to-speech software, video captions and easily adjustable fonts can accommodate various learning needs, offering students ways to engage that might not have been possible in physical settings. However, these advancements and benefits must be balanced with the potential for a loss of personal connection and understanding. The difficulty is in finding ways to maintain relational depth, empathy, and responsibility in digitalization, to ensure that the tools are used not just for efficiency but also for inclusive connections. Freire's (2004) critical pedagogy posits that education should empower students through dialogical relations, challenge oppression, and embolden critical thought. Freire (2004) highlights the importance of mutual respect and collaboration between teachers and students, which Steve suggests are hindered digital educational settings.

Marie also critiques how digitalization sacrifices meaningful connections for convenience. She articulated the value of education in understanding life and people: "I think it's really hard to understand how to navigate life and people if you don't understand how they work. You aren't going to understand unless you actually learn about it and then figure out how to interact." She went on to explain that through education, you become the best version of yourself; you learn to be a communicator because you are around people who are good communicators and have a relationship with them. She feels that when people learn to communicate and learn how other people act, people are harder to "brainwash," and they are

"more critical thinkers [who] can wield language in a way that's powerful to effect change where there needs to be change. So all of that is about being who you are supposed to be." Marie's perspective on education deeply reflects multiple themes in relational ethics. Marie stresses that understanding how people work, especially through face-to-face interactions, is necessary to navigate through life. While digital communication is a part of modern relationships, she believes that the depth of understanding and the development of strong communication skills often emerge most effectively in direct, personal exchanges. It is however important to note that while face-to-face interactions are important for building ethical relations, digital spaces can also present ways for people to navigate interpersonal interactions. Digital relationships do exist and may foster newer forms of expression and understanding, but the challenge still lies in balancing speed and convenience with relational depth. This shows a connection to the foundational relational ethics idea of the relation as a moral agent and that education begins with relations. A teacher's critical and careful response to and interaction with students is foundational in education through relational ethics. Marie's thoughts support this in that she feels that becoming the "best version" of yourself is a process of learning from others and developing meaningful relationships.

Marie's sentiments echo Noddings' (1984) care ethics in that both Marie and Noddings emphasize empathy and attention to ethical relations. Marie's comments are also notable in relation to hooks (2014) feminist pedagogy, which focuses on fostering authentic connections and transformative learning through dialogue and engagement. Marie's view that education fosters critical thinking and strengthens minds against manipulation reflects Freire's (2004) view of empowerment through dialogue and criticality. As Marie stated, by learning to "wield language" powerfully and effect change, people can engage in an ethical responsibility and ethical relation, much like Lévinas' responsibility to the Other (Lévinas, 1981).

Marie also addressed digitalization:

> I feel like, a lot of times… with the desire for convenience, we sacrifice relational things. We want the convenience of everything at our fingertips. Which is great and all. It's great that you don't have to walk to the library, pull out a card catalog, and ask the desk lady for the microfilm and to put it in the thing; that's great and everything. But now you've got new problems – so how do you know if you've got authentic information, and how are you going to verify that because there are lots of people out there who are working really hard to make false information look real? Who do you trust, and how do you know that? And

> then, you are on your screen so much, you're not interacting with other people, and so because you don't relationally know how people work, that makes interpreting information also tricky because now, you don't know how people function like – what to notice in people or what to look for or how to observe in that way, how do you – how are you then lacking when you are on a screen and you're looking at all these stuff – how are you going to know – you know? (Marie)

Marie's thoughts highlight the paradox, between convenience and relational connections, which are essential to learning about digitalization's impact on ethical decision-making. Marie grapples with the compromise between convenience and relationality. She points to the greater access to information and resources technology offers while acknowledging its proclivity to reduce relations between people and the ability to discern trustworthy information from misleading or falsified information. Her critique is deeply rooted in relational ethics, especially in how digitalization impacts people's understanding of others and our ethical responsibility toward others (Lévinas,1981). At the same time, digital platforms might allow us to engage with diverse perspectives and ideas that are not easily accessible in face-to-face settings, which could offer new possibilities for understanding alterity. What is challenging is figuring out the ethics of these encounters in ways that honor the uniqueness of the Other and also how to come into contact with diversity through digital platforms while mechanisms like filter bubbles and echo chambers exist.

Marie expresses concern about authenticity in digitalization, highlighting the importance of empathetic and responsive connections between people. Within a digitalized space, emphasis is placed on speed and efficiency. Therefore, transactional interactions (as Steve pointed out) are prioritized over the more complex learning of others that relational ethics encourages. Marie's thoughts encourage reflection on how people navigate the digital world without a foundational understanding of human behavior, often acquired through experience. The reliance people have on digital interactions calls for a new way of engaging with others ethically, one that can support relational engagements despite the challenges of convenience. Feminist pedagogy (hooks, 2014) and care ethics (Noddings, 1984) are critical to these thoughts. Marie's phrase "wield language" and then to critically analyze information helps people to resist manipulation. It connects to Freire's (2004) notion of empowerment through criticality and Lévinas (1981) concept of ethical responsibility to Others.

Pete also shared his views on digitalization and his experiences teaching totally online.

He said that while the platforms attempt to offer the same "level of face-to-face, there's that interpersonal connection just isn't there" and that people must be self-motivated to learn in those environments because "you can put that stuff in there, but it kind of depends on whether or not the student uses it. Right, so it's like, I can give you all these tools, but it's up to you to kind of figure it out." These sentiments are part and parcel of Lévinasian ethics, especially the 'face-to-face' encounter with the Other. Lévinas (1981) conceptualizes the encounter with the Other's face as the moment that reveals their irreducible alterity (a unique part of the Other that cannot be fully understood or possessed by another). This moment of encounter starts a person's ethical responsibility and requires the response to be based on respect and one that honors the Others' vulnerability and differences. During this moment of the face-to-face encounter with the Other, the Other and their irreducible alterity challenge the self. This moment demands of the self a response that is not based on simple comprehension or utility but requires an ethical engagement where responsibility and vulnerability are vital components. Lévinas (1981) posits that the responsibility in these moments is no longer a choice, but an infinite demand put on the self by the Other's presence. However, while the face of the Other is vital to Lévinas framework, digitalization introduces different paths for engagement with alterity. The ‘face’ of the Other may not always be immediately visible, but the recognition of the Other’s uniqueness and worth and the ethical responsibilities that arise from this interaction still exist in digital spaces.

In fully online environments, teachers and students face challenges replicating the ethical engagement Lévinas describes. In face-to-face interactions, the 'face' of the Other is critical in creating an ethical connection. This encounter, which involves a direct and personal meeting, allows for a deep recognition of the Other's unique identity and fosters a sense of responsibility and vulnerability. However, this kind of encounter becomes challenging to create within the digitalization of education, where physical presence is unnecessary. Teachers and students have to navigate an educational space where the nuances of alterity, the distinctiveness/uniqueness of the Other, and the ethical responsibilities that arise from it are less pronounced. For instance, in a fully online classroom, interactions are mediated through screens and text, which can reduce the immediacy and depth of personal connection. As a result, the subtle yet significant aspects of vulnerability and ethical responsibility may not be as easily engaged. The tools and resources in an online learning environment act as educational aids and do not replace, but supplement direct interpersonal interactions essential for connected living. This lack can make students (and teachers) feel isolated, function as singular entities rather than part of a shared learning

community. The 'face' of the Other is essential for recognizing and responding to their unique identity (Lévinas,1981) and is often missed in digitalized interactions. Consequently, the ethical connections central to relational engagement are diminished.

Hinsdale (2016) furthers a discussion, emphasizing the importance of alterity in relational pedagogy. While digital tools help facilitate learning, they cannot replace the ethical and relational dimensions developed through face-to-face encounters. Todd (2003) notes that encounters with others require a wiliness to be vulnerable, which is often absent in digital contexts.

Regarding Digital Shifting, many teacher participants discussed how digitalization transformed their careers, especially in relation to the pandemic. Pete made a poignant comment about the time change digitalization made for him during the act of teaching. Pete expressed that when teaching face-to-face, he can fix something "right in the moment" or the next period, and it does not seem to interrupt the flow of learning. However, when he changes something to an online learning platform, the format is more concrete, so he feels he can "modify it a little bit as we go, but once you start tinkering with it, everybody's like, 'What's going on?'… 'Why did you change this?' or "what does this mean?'." There is no space for vulnerability when the format and platform require no presence.

Democratic Relational Education

Most teacher participants spoke to me about their educational values, about their values origins, and the reasons behind them. Phrases like “problem solvers,” “good communicators,” “global citizens,” and “empathetic people,” were often used. Steve stated:

> I think the moral and the spiritual in the sense that, you know, the more educated we are as a people, I think one of the key components of public education is bringing together a diverse population of students in a community and helping them to better understand one another. The more people understand their differences, the less likely they are to have conflict. So, understanding where other people are coming from, I think, is the first step in first tolerance and then eventually understanding. And I think that's, that's, that's valuable as a civic lesson as citizens, right? I think that's what we want for our community, our state, and our country.

As our conversation progressed to digitalization, Steve said there was a "disconnect" from this type of value, suggesting that increased digitalization makes education more

transactional. Phoebe, however, shared that she feels relationality in education is important, but that digitalization enhances her drive to teach despite presenting new challenges because it is a new thing to guide students through. Their comments relate to Dewey's (1930) conception of associated living and the formation of democratic habits (Dewey, 2002).

Phoebe and Steve's comments align with democratic aims for education, where relationality lays the base for inclusive, participatory, and empathic educational practices. Dewey (2002) focuses on the importance of habits, which are not simply repeated actions but predispositions to act in certain ways. Habits are formed through social interactions and relations with cultural norms and experiences, which impact how people engage with the world and create their subjectivity. Dewey sees reflective thought as fostering the development of new and perhaps better habits, as closely connected to ethical engagement with others and processes like education. Dewey's (2002) habits are closely linked to identity formation, subjectivity, and agency, as habits allow people to perceive, reason, and act in our worlds. Habits respond to their situatedness and others, evolving through reason and reflective thought.

Steve's concern about digitalization highlights potential challenges to developing meaningful democratic habits. If education becomes more transactional, it may hinder reflective habits that Dewey advocates. Phoebe, however, sees digitalization as an opportunity to guide students in forming their habits, resonating with Dewey's view that reflection fosters the development of better practices. Phoebe's view also seems to suggest that teachers can adapt to digitalized spaces by embracing reflective practices that can enhance their preferred teaching pedagogy, in her case, strong relationship-building with students. By re-evaluating and creating her own habits, she guides students through and to theirs. Steve and Phoebe's views reflect relational democratic education in that they value relationality in teaching and democratic means and ends. Pete emphasizes the value of face-to-face interactions:

> I think I get to know the student as a learner and as a person more. Whereas in that digital environment, yeah, I know your name is there. And I know the things that you've written before. But beyond that, it's - unless I've, you know, had some sort of interaction digitally with you, I'm not going to know. And, I mean, I can--and even - even like in the - because I try to - I try to have interactions with them after each paper, you know, kind of go - and it's - it's difficult for them and me. So, sometimes, it's just not on the page. But - It's interesting to kind of know that person as a writer and as a student and then meet them face-to-face and just have that--it's - it's just awkward. Yeah. And so you don't - you

> don't get that in a classroom. I mean, I - I'm new here, and within a couple weeks, I knew who was where and all that. And I could - I could see their personality come out in their writing. But much more than I can in the online environment.

Pete contrasts the richness of in-person connections with the limitations of digital interactions, believing that direct engagement helps him understand and learn about the students. Dewey's (1930) principles of inclusivity and participation are active, practices, and learned through such interactions, fostering teacher and student subjectivity and agency.

Bobby notes that her colleagues and administration currently hold fewer meetings, which she is okay with, attributing this change to organizational shifts. She shared that the teachers are divided into small groups throughout the school year to work on projects and that there is a greater reliance on technology for communication than before the pandemic. She said that her principal recently sent the teachers a Google Form to gather their preferences, which Bobby feels is a simple and efficient way to help colleagues know and support each other. An example of this was that if a colleague was having a rough day, you could go on the Google Form to see their favorite candy and leave it for them to cheer them up. She feels this makes things quicker, more efficient, and more accessible than how things used to be.

The changes Bobby reflects on from digitalization can also be connected to fostering democratic habits in education. Using technology for efficient communication (like the Google Form) places value on inclusivity and community between colleagues. This is also similar to Dewey's (1930) educational democracy, in the way that technology is used to create more participation and connection. However, simultaneously, such efficiency can also be seen as a hindrance to meaningful, inclusive relations. There is no interaction in the experience of filling out a form, but this step may create more connection between teachers.

Conclusion

Digital Craft is seen in the interview data and connects to the literature through teachers' perceptions of their work and how digitalization impacts their craft. The COVID-19 pandemic accelerated the digitalization of education, seemingly changing teaching practices and teacher-student interactions. The teacher narratives explore their complex relationship with technology, recognizing its potential to enhance engagement and efficiency while also facing increased workloads, changing roles, emotional strain, and demoralization (Santoro, 2018). This

development, influenced by neoliberal policies, prioritizes efficiency and accountability for teachers through digital surveillance, increasing tensions between technology use and teachers' educational values.

Digitalization is reshaping teacher roles, as gleaned from the participants, and raises concerns about privacy and the diminishing importance of personalization in learning and teaching. Bobby and Phoebe express an appreciation and embrace digitalization for its educational benefits. Steve and Pete share concerns about the impact of digitalization on teacher-student dynamics and pedagogical decisions. The teacher participants also grapple with identity negotiation, as we saw with Marie and James, as they expressed the complexity between the demands of digitalization and personal values. The growing convenience of digitalization poses challenges for relations to occur. Marie's account of the importance of authentic connections and ethical responsibility is similar to feminist pedagogy (hooks, 2014). Such reflections also resonate with theories by Dewey (1930) and Noddings (1984), who conceptualize the importance of relational and associated learning in promoting moral development. Digital Craft helps me see the complex balance teachers must meet with the potential of digitalization to benefit educational practices and outcomes and the imperative to keep the integrity of teaching practices based on relational ethics with democratic aims.

Digital Shifting, as seen through the teacher narratives and literature analysis, shows how time has impacted teaching practices. COVID-19 became an important data point from which teachers conceptualize the change in their perception of time and material. The short stint from the pandemic to now impacts teachers' perceptions more than they felt years prior because of the quickly changing methods and how students and teachers engage. Bobby, among other teacher participants, appreciates the efficiency and organization digitalization offers. Phoebe, Pete, and Steve express some concern about how changes brought on by digitalization take away from interpersonal connections. Digital Shifting is also prominent in how Sue and James reflect on the changing social interactions of students due to digitalization and the changes in student behavior, which impacts education outcomes and processes. These narratives connect to issues of power/knowledge (Foucault, 1977) and the traversing aspects of agency and subjectivity for teachers. Digital Craft and Digital Shifting's connection to literature shows the transformations, challenges, and opportunities within education due to digitalization.

Chapter V

Analysis: Digital Binding

As the second and final analysis for this research, this chapter explores the intersections of digitalization in education, neoliberalism, subjectivity, identity, agency, and relational ethics within the theme of Digital Binding. Digital Binding is the third theme of this research. It was conceptualized from codes such as Relations, Expectations, and Views of Technology influences on students. Digital Binding refers to the ways that digital technologies create connections - or "bindings" – between subjects and non-subjects, influencing interactions between students and teachers through impacting their subjectivities, agency, and identity. Digital Binding also serves as a metaphor for the promise of innovation and enhanced connections between students and teachers through their use of digital tools, signifying the potential for empowerment and engagement. It also reflects the complexities and challenges that come with relations that are mediated in this way, where power and expectations can become convoluted.

This chapter analyzes teachers' reflections on their relationships with students and the effects of digitalization on these relationships. It also explores how teachers think digitalization impacts student identity, subjectivity and agency, along with teachers' expectations for their students, as these views also engage teachers with their own subjectivities and identities. This exploration addresses the dual aims of this research: 1) How have teacher identity, subjectivity, and agency been challenged and uniquely developed within the digitalization of education? and 2) Despite the oft-touted democratic nature of digitalized education, how do teachers perceive its potential for fostering participatory agency to support their students and their practice best?

This chapter engages Digital Binding themed narratives in four sections. The first section examines how the digitalization of education, driven in part by neoliberalism, interacts with teacher narratives. The second section analyzes subjectivity, identity, and agency as found in Digital Binding, demonstrating how teachers negotiate and construct their identities in an educational context. The third section explores Digital Binding through relational ethics. Finally, I discuss the Digitalized Deficit Citizen as it emerged from this research.

Digitalization, Neoliberalism, and the Impacts on Educational Practice

The digitalization of education transforms pedagogy, curriculum, and educational spaces, through the integration of digital tools, influenced by historical technological advancements and contemporary discourse surrounding information and communication technologies (ICTs), the Internet of Everything (IoE), and artificial intelligence (AI). While digitalization has plenty of benefits, like access to more resources and streamlining communications, it also has some challenges, including data privacy concerns, algorithmic discrimination, and the commodification of education (Means, 2018). The interconnection of digitalization and neoliberalism, a mix of policy and ideology advocating for market-driven ideals and decentralization (Larner, 2000), further complicates these educational spaces. Neoliberalism prioritizes economic imperatives, often to the cost of social and democratic goals, resulting in standardization and marketization of education, which exacerbates inequalities (Ball, 2003; Blackmore, 2020). This ideology can influence teachers' perceptions of their identities, subjectivities, agency, and their students, restructuring their pedagogical practices and ethical engagements within digitalized spaces. This section explores how neoliberal policies manifest in schools through digitalization and their possible impacts on relationships.

Balancing Digitalization and Cognitive Development

"Your brain and the synapses connecting, and your cognition, and your depth of understanding, and the synthesizing information has to be there. Yeah. And technology cannot do that for you" (Syd). While technology enhances learning through broader access to resources, it raises concerns about teachers' views of students' critical thinking and engagement. Teacher participants expressed concerns based on their experiences with students, particularly regarding cognitive development and critical thinking skills. As Syd's quote highlights, there is a significant concern regarding overreliance on technology in education. "Because technology is so powerful, it is doing all the thinking for students." Studies show that excessive use of technology in classrooms and for educational purposes can lead to passive learning behaviors, where students rely on algorithms and digital tools to complete assignments without fully engaging in critical analysis or creativity (OECD Report, 2015; Cuban, 2001).

Steve reflects on the impact of digitalization he sees on student literacy and reading habits. "Oh my God, reading is very different. Sustained reading is a skill that is much harder for our students today than it has been." He went on to explain that reading in the U.S. is often thought of as sinistrodextral but that the current trend he witnesses is circular. Students read around webpages or applications to gather or extract specific information. Marie furthered emphasized that she has found that students generally have less endurance for reading and writing, suggesting that people consume information differently, impacting their cognitive processes and identity. The prevalence of short-form content and multimedia distractions creates new challenges for teachers, who must find ways to nurture sustained reading habits and critical comprehension skills.

Syd discusses how she feels that ProgressBook and emails help add a "personal touch" while limiting how much communication happens between parents, teachers, and students. This highlights the paradox of digitalization's impact on personal communication. The abundance of communicative platforms offers more opportunities but not necessarily more meaningful communication. Meaningful communication is defined here as interactions that foster ethical responsibility toward others, emotional connection, and engagement between subjects. Despite the efficiency of digital communication, such as email and learning management systems, such systems often lack the personal connection that face-to-face interactions can provide.

Pete shifts focus to the learning required for effective online engagement. He describes an "apprehensive, kind of anxious period" where people and students must deal with "learning how to learn online." Pete points out the psychological toll digitalization can impose on learning. Participant teachers find that not only is digitalization being used for educational purposes, but the pervasiveness of social media also impacts students in schools through issues like cyberbullying, social comparison, and digital addiction. These can add to increased student anxiety, depression, and other mental health challenges, as James illuminated during our interview.

A Communication and Continuity Burden in Neoliberal Education

Neoliberal policies have deeply impacted education, influencing everything from administrative practices to teacher-student relations/dynamics. Maude, one of the participant teachers, helped me think through some of the effects of neoliberalism on education through her

insights. A pattern emerged, highlighting effects such as over- communication and lack of time, loss of personal connection, technology and student engagement, and resistance to change and help. Maude expressed an ongoing sense of being overwhelmed by communication. She stated, "We are so over-communicated." Maude's comment illustrates the burden imposed on her time by digital interactions, such as constant emails and text. While I am not implying a direct causality, I do think this phenomenon can be connected to the neoliberal emphasis on efficiency and accountability, which often intensifies administrative tasks and consequently leaves teachers like Maude with little time for meaningful engagement with their roles and relationships.

Despite the increased contact from digital communication, Maude stated, "There is more contact but less knowledge of who people are," highlighting a growing preference for in-person conversations over digital communication. Maude added, "I'm valuing in-person conversations more, and I get more annoyed with people who only want to email and text." These quotes suggest that neoliberal policies prioritizing quantifiable outcomes and competition might inadvertently make the process of nurturing personal connections in educational spaces less essential. While the increase in digital communication could be interpreted as a general intensification of work under neoliberalism, I see that it is essential to examine how digitalization is restructuring the interactions between teachers.

The integration of technologies has also significantly impacted teacher-student dynamics, leading to concerns about student engagement for Maude. She noted, "Students are so much more disengaged than they used to be... It's weird. At a certain point, they're like, I'm bored." She finds that students feel boredom due to the constant expectation to use digital tools. These quotes highlight growing disconnections between students and more and more digitalization in education, which could impact the transactional nature of neoliberal educational systems. Marie expressed her concern that students and U.S. society more generally are increasingly devaluing education, a process she sees as related to heightened digitalization. She believes that as students immerse themselves in digital devices, they may view learning as a commodity rather than a genuine pursuit of knowledge, which creates a barrier for teachers trying to engage them in that pursuit.

Maude has witnessed a change in students' attitudes toward self-improvement, which reflects more complex societal implications. She articulated: "They [students] just don't know

how to engage with somebody else, to like, accept help to get better." She observes reluctance in students to seek assistance which might be tied to a broader trend of student disengagement. For most people asking for help requires not only vulnerability but also the capacity to put time and effort forth to improve their work, which can seem daunting. Maude also observes, "How to accept help without saying, like, this makes me, like, I'm bad, I'm not good enough because I'm accepting help." These quotes point to teachers' observations of student resistance to embrace growth opportunities. Fear of failure may become culturally exacerbated by neoliberal ideals of individualism and competition. However, while fear of failure plays a role, disengagement could also stem from a lack of motivation or interest.

Additionally, Marie emphasizes the importance of needing to overcome the fear of being wrong in the learning process, stating:

> Look, if you are too afraid to be wrong, you will never learn. You have to be willing to be wrong. …Like, we need, and we need you to openly be wrong. Like, nobody wants to openly be wrong, but we need you to be openly wrong because what if you are openly wrong and five other people in the room were wrong with you? We can't dispel where the failures are if we don't see them. And if you don't ever tell us or take a risk and say, well, I was thinking that, we can talk about, oh, well, I can see why you ended up there. However you need to consider these points, but you're not going to ever figure that out if you don't say it. So we do a lot of talking about somebody has to sacrifice for the greater good. Right? You're just going to have to sacrifice yourself for the good of the order and be OK with it because if you don't, we don't learn. (Marie)

Marie stresses that the "openness" is crucial for collective learning and if students will not take risks in sharing their thoughts, opportunities for discussion and growth will be lost. The emphasis on self-sufficiency may deter students from seeking help and collaboration, which can hinder their academic, social, and emotional development. In the context of the digitalization of education, where interactions are often public, recorded and surveilled, there can be less space for students to openly make mistakes. The desire to appear perfect on these platforms can discourage risk-taking and the willingness to share ideas, which in turn limits opportunities for collective learning and growth. Additionally, the relative, or perceived anonymity people feel when interacting with digital platforms can led people to feel less responsible for others, further inhibiting collaboration and the willingness to engage in open and vulnerable discussions.

Another teacher participant made similar comments that I relate to the relationship

between neoliberalism in education and the challenges posed by the abundance of digitalization in education. Her comments emphasize the disparities in curriculum synchronization, technology exposure, and the erosion of teacher-student relationships. Syd stated:

> It depends on their microcosm. Because, like in this, in Hanover [school district], their curriculum K-12 is not synced. I'm just learning this. So for the younger grades, the teachers are not teaching them technology. So they're getting up here in ninth grade, and they do not know Desmos. (Syd)

Desmos is an advanced graphing calculator, it allows people to plot data, manipulate graphs of functions, and interact with math concepts visually. I analyze Syd's observation as a critique of how market-driven changes in education affect curriculum alignment; without a cohesive approach, students might lack basic and essential skills as they advance through schooling. This issue arises partly from policies that prioritize local control over uniformity, leading to unequal access to technology in and for education. On the surface it might seem that the commodification of education would lead to more alignment in curriculum; but rather than cohesion through a student's educational trajectory, we have piecemeal products bought and sold, with financial gain superseding democratic learning and teaching. This issue goes beyond technology or curriculum products; it reflects a larger shift towards the commercialization of education, where policies, resources and teaching methods are increasingly driven by profit motives, undermining the democratic principles of equity and access in education.

Perhaps another issue this statement alludes to is an issue with assumption. Perhaps Hanover* assumes that since technology is ubiquitous, there is no need to teach students specifically about it or ensure they all have the same quality of technology. This could lead to differences in what students learn and experience, which reflect a trend toward devaluing equitable access to resources that has been in existence long before neoliberalism. Syd went on to say, "And so, but we're human. And so, to be teaching, I'm thinking about John Dewey. He'd turn over in his grave. You know, they're human, but we have to connect." Referencing Dewey, Syd highlights the importance of relation-centered education, in contrast to educational policy that upholds efficiency and marketization outcomes. In using Syd's insights, I critique neoliberal policies that take away from human connection in teaching. Her emphasis on the importance of human connection in teaching reflects concerns about the erosion of teacher professionalism, the devaluation of pedagogical agency under neoliberal reforms, and then the devaluation of education for democratic aims. Syd's sentiment illustrates the ongoing tensions between market-

driven reforms and the democratic educational goals of equity, agency, and meaningful human relations, suggesting that both curriculum alignment and relations are critical areas impacted by neoliberal reform. The roots of inequality and inequity in education are complex and intertwined with multiple systems, and while neoliberalism may exacerbate these existing disparities, it is important to acknowledge that they have a long history, predating neoliberalism and digitalization.

An Erosion of Engagement: Neoliberal Inputs on Student/Teacher Relation

The digitalization of education is not only about technological advancement but also about the social impacts of neoliberal policies. Neoliberal reforms prioritize commercialization in education (Means, 2018), efficiency (Duarte, 2021), accountability (Ball, 2003), and market-driven outcomes (Cohen et al., 2018; Mehta, 2013; Ravitch, 2010), which in turn impact educational systems not only in the U.S. but globally (Larner, 2000; Noble, 2018). While not all technologies are inherently designed to serve neoliberal aims, many are used in ways that subscribe to these ideals.

The ubiquitous nature of digitalization for education makes teachers wrestle with its potential to support learning and the issues it causes for teacher and student agency, communication, cognition, and critical thinking. This intersection shows a tension between technological innovations and educational principles and values that center meaningful human relations, agency, and student development. Syd's apprehension about technology "doing all the thinking for students" and Maude's frustrations with over-communication illuminate this complex nexus. Syd's comment encapsulates a critical aspect of Digital Binding: the teacher's perception of the potential for digitalization to remake student agency and identity, therefore changing how teachers work and view their roles.

As digitalization becomes more pervasive, there is a possible risk that students may rely more on algorithms and automated processes, which could dilute their sense of agency (Regan & Jesse, 2019; Citron & Pasquale, 2014) and critical thinking skills (Cuban, 2001). This process feeds teachers' responses to students, shapes their expectations for students and their pedagogical choices, raising concerns about how digitalization impacts student agency and personal identities within educational settings.

Steve's observations on reading habits point to the changing nature of student identities and how digital platforms influence them. The move toward shorter and fragmented reading

experiences because of digital content consumption suggests a transformation in how students perceive and engage with information, potentially altering their cognitive and emotional relationships with learning. Reading behaviors are but one mirror of some of the teacher comments in this study relating to how digitalization impacts student subjectivities and influences teacher expectations for students and their pedagogy. Maude's comments point to another part of Digital Binding: the impact of digital communication on teacher-student relationships. Digitalization and digital platforms that assist or mediate communication and streamline administrative tasks also reduce opportunities for meaningful interpersonal connections. Maude's frustration with excessive digital communication highlights this concern about maintaining meaningful relationships with others while using and living with digitalization.

Digital Binding elucidates how teachers traverse this complex digital educational world in their educational practices while maintaining meaningful teacher-student relations and encouraging the development of agency and identity in students. It shows how and if teachers critically analyze the role of technology in their educational spheres to maintain a balance for themselves and their students that can uplift and enhance student and teacher subjectivity, agency, and meaningful relations instead of diminishing them.

Subjectivity, Identity & Agency

In this section, I examine Digital Binding through the concepts of subjectivity, agency, and identity as was reflected in teacher narratives about their experiences with the digitalization of education. Identity is fluid and embedded in social discourse (Britzman, 1992) and reveals how teachers navigate their roles in changing contexts. Subjectivity is similar in that it is fluid and is impacted by power relations (Mansfield, 2000; Duarte, 2020, 2021; Bhattacharya, 2017) and digitalization which makes teachers' sense of self and agency complicated. Agency evolves through interactions and systemic influences (Duarte, 2020; Biesta & Tedder, 2007), demonstrating teachers' capacity to adapt, critique, and engage with reform while navigating their identity. My research here aims to explore how these concepts manifest in the context of Digital Binding.

Subjective Costs of Connectivity

"I think the biggest downside to the technology is how fragmenting it is to all of our attention spans and splitting things up" (Phoebe). Here, I look at some teacher participant comments that focus on their and students' well-being and perception, including their views of the effects of technology and digitalization on attention, stress, physical health, and emotional and mental health. The quote from Phoebe shows that digitalization often disrupts the ability to maintain focus, attention, and thought. She is concerned that constant switching from one digital tool or platform to another diminishes concentration and attention and fragments life. While Phoebe and the other teacher participants reflect on digital technology's impacts on their students, they are also in the process of reconsidering their roles as teachers and how they interact with students and technologies. This internal grappling can impact teachers' sense of efficacy and professional identity and, therefore, their subjectivity. Not only is the issue of the continuous switching back and forth between specific digital tools and platforms, but it creates a process of constantly switching between different types of relationships we have with people, professional, personal, and the technology itself, within a very short timeframe.

Similarly, Marie points to the added stress of managing multiple digital tools and platforms put on her work, stating, "I think stress levels are higher, so there's more to keep track of" (Marie). Marie directly connects digitalization and elevated stress in her life, which shows the challenges of balancing digitalization with mental well-being. Marie's reflection on the added stress suggests that the demands of digitalization impact her own work-life balance. Such heightened stress levels can ultimately require teachers to question their teaching practices and the values they place on them, which then impact their subject experiences and can lead to demoralization. Marie also comments on her perspective of prolonged screen time, which includes physical and emotional consequences. She noted:

> It affects their [students'] mood and all the physiological changes that happen to kids, especially when they're on screens so long, like, well, you get the dopamine hit from the screen, but then you don't have the interaction, so there's more loneliness, so there's more depression, so there's more all these things that are now complicating learning, and then we get Chromebooks for them all, and then we say here - take them home with you forever. (Marie)

Marie worries how digitalization complicates student learning and well-being, which are parts of human subjectivity. Marie expresses that digitalization has an impact on students' emotional

well-being and on her emotional resilience. This dual awareness of her own and her students' well- being impacts her sense of purpose- her sense of efficacy and effectiveness as a teacher. Phoebe complicates this sentiment, stating:

> I feel like something was definitely lost when we - with the technology and having kids, having kids type papers on a computer a lot. I feel like I got lost. But of course, a lot was also gained because there's so much more flexibility with revision and with any technology.

Here, Phoebe is speaking of her subjectivity, as she felt that with an influx of digitalization and digitally mediated communications, she got lost in it all. Simultaneously, she grappled with the perceived benefits of digitalization. She shows that this influx is complex; while it provides flexibility and efficiency, it also contributes to disorientation and reduces personal connections to others.

Maude also highlighted the impact of digital technologies on her students, saying, "I think that it's like students love their phones, and they love the computers, but at a certain point they're like, ‘I'm bored.’" Maude illuminates how students love and enjoy their digital tools, but they also bore students, sometimes without the students knowing it. As Maude witnesses her students' boredom, though unknown to them, she also engages with ways to deal with the frustration digitalization has added to her profession. Maude's experience as a teacher is changing with students' constant engagement with technology and her own. She is teaching herself how to keep her love for the profession and create a balance to find joy while teaching in a much-changed digitalized landscape. This demonstrates how agency connects to subjectivity through a dual relationship; students enjoy digital tools but experience boredom, which can diminish their engagement and autonomy. Boredom can have an impact on how students engage. When students disengage, they can feel less empowered to control their learning experiences.

Digitalization may provide opportunities for interaction, research, and exploration, but it can also lead to passive consumption of information. If this occurs, students could find themselves in a cycle where they seek entertainment and novelty without having the capacity to fully engage in learning, leading to a diminished sense of agency. Students often have little choice about when they interact with digital technologies, especially in educational settings, but are also compelled to use such tools in their social and personal lives. However, the limit of these tools in upholding actual interest and engagement can take away from their motivation and ability to control or feel a sense of control over their learning. The experience of boredom,

coming from interactions with digital technologies, can impact students' sense of agency.

James commented on his views on social media and mental health. He stated:

> Texting, emails, Instagram, whatever else they do. It's terrible. Plus, then there's the other side of the--and I can't remember what the clinical term for it is, but these kids who are obsessed over their social media stuff, you know, what's being said about them, who's saying what about them. I've just seen a huge spike in, like, depression, anxiety, mental illness. I can't tell you how many kids we've had hospitalized long-term for suicidal ideation, depression, and anxiety. It's terrible. Last year was one of the worst years I've seen in 30 years. (James)

Social media has become part of people's everyday worlds, including students. It is a powerful force in shaping self-perception and peoples' mental health as its impact reaches far beyond simple communications and access to information and affects psychological well-being. James' is concerned for his students' well-being because of the impact of social media, which extends to his own feelings of responsibility for his students. The struggles he sees in his students' experiences make him concerned with how he, as their teacher, can help support them through their uses and how he can help them interact better and understand digital tools. James' observation shows how digital relations impact students and, therefore, teacher subjectivity.

In addition to the direct mental health impacts James comments on, social media also often create spaces that are like echo chambers and filter bubbles (Lynch, 2019). These forces intensify subjects' pre-existing beliefs, shaping their subjectivity and isolating them from diverse thoughts and perspectives. This can limit students' viewpoints, narrow a subject's perspective, and reinforce social and cultural power structures. James' comment about students who struggle with social connections and experience heightened conflict based on social media illustrates this issue. Social media impacts students' subjectivities, as subjectivities are in flux and fluid (Britzman, 1992; Weiler, 1991). As such, this also impacts students' embodied experiences within physical school environments. When students use digitalized media to organize and magnify conflicts, students are adding a layer to physical communication that James sees as a complication to face-to-face interactions, contributing to isolation and distress. This exchange between subjects' digital and physical experiences illuminates how social media molds subjectivities by limiting subjects' exposure to other discourses that are not about heightened conflict. These few teacher reflections on their students' digital experiences are not only a commentary on student behavior but also a catalyst for their own subjective growth and

navigation. As their students and their relations with their students evolve, so do teacher subjectivities.

A Paradox of Empowerment: Agency in Digitalization

The relationship between students and their educational spaces and environments has changed with the addition of digital technologies. Bobby discussed what she did during the pandemic with her students to help them cope with learning and trying to connect entirely online. She used an assignment (Figure 3) where she expected students to share about themselves with important items they have around them in a picture and a short description. She thought such assignments helped students get to know each other and gave them a voice through the screens. While this assignment, which worked well during online learning, is no longer used now that students are back in the classroom, the experience led Bobby to adapt some of her strategies for empowering students and making them feel more comfortable in person. Because of the pandemic and the heightened use of digitalization, she carried some of those ideas into her classroom. She now occasionally uses Jamboards to help students feel empowered to open up about their writing and brainstorm together. She feels such activities can make students feel more comfortable once they are expected to get up in front of the classroom or share their work and ideas with the class. She sees it as a tool for breaking the ice and empowerment.

Figure 3

Bobby's Assignment

Mrs. Daily Life: Quarantined Edition

Sharks. Sneakers. Sloths. Sanitizer. My quarantine in four words.

I am working at home full time while trying to help my third grader and my kindergartener with their remote learning. I also am taking care of my one-year-old son, loves his pacifiers, so that helps keep him quiet during *most* Zoom meetings. He also has really cool toys called Linkimals that connect together and sing him songs. The sloth toy is my favorite because it reminds me of myself. I love taking naps! My son stays entertained with all of his animal figures. Right now, he is really into sea creatures and sharks. He watched "Shark Week" and has tons of different shark figures. Right now, his favorite sharks are goblin sharks and hammerhead sharks. My daughter is a third grader and her favorite animal is a peacock. She wants to own a peacock farm when she is older.

For me, quarantine and remote learning means I need an escape after being in front of a screen all day. I love to run, so I try to run around five times a week. I mostly run in my neighborhood, but prefer to run on trails when I can. I ran cross-country and track in high school, but was terrible at track. I always placed last in the two-mile and would beg my coach not to make me run it. For teaching, my computer is obviously more important than ever. I keep a notebook and fun pens nearby so that I can jot down teaching ideas, important notes, and participate in writing prompts with my students.

Maude reflected on the changes she saw from the addition of more digital technologies:

> It's like they just want their preconceived notions of what something is, and they don't necessarily care what the teacher tells them anymore. Like, at all. Because you're not on the websites or the TikTok. It's like -- It's weird. It's just totally changed. They like me most of the time, in general. Like, we get along. And, like, I ask them about their weekends, and I ask them about basketball, or this or that, and we talk. I mean, I like my students a lot, and they like me, I think. But they don't want direct instruction at all. Yeah. Like, if I say, "Well, I can help you do that." Just like, you know, "If you just shade that a little bit more." 'Oh, no. I like it how it is.' And I go, 'Well, if you just shade that a little bit more, it will look more realistic like it's a can or like it's a bowl.' Nope. No.

Within her reflection, I hear her alluding to changes in students' approach to learning and teacher guidance. Maude reflects on a trend where students resist instruction, hands-on instruction, or critique and offers for growth and help in favor of their personal preferences, beyond mere preferences, to show a shift in student attitudes. Despite her feeling that she has strong connections with her students, where they converse and "like" each other, she sees that they are increasingly disinterested in her help and guidance when it parts from their views. The consumed digital media can become their preconceived notions of what is "real" and what is "good," and a teacher's input becomes redundant or undesirable.

Digital Grading and Engagement

Pete emphasized how digitalization has enhanced parental access to students' grades and communication through platforms such as Progress Book. By comparing his experience teaching at a different school than Pace, where he works now, he says that the other school had less parental access to grades and fewer ways to communicate with parents. He found that communication with parents was rare but valuable because it was difficult to make a connection. Pete said that while some parents were actively involved, others weren't, but that did not mean they were not engaged with their students. Pete noted that as a parent, he appreciates having a perspective as both a parent and a teacher. When his child misses an assignment, he can understand firsthand why his student/child is struggling. Pete feels that things like ProgressBook can help motivate students to complete their school assignments as a way to avoid hearing complaints from their coaches, parents, and others. He feels this transparency helps empower students and allows parents to stay informed about academic progress and responsibilities, thereby enhancing accountability. After the interview and review of the transcript, I, however, started also to ponder the constant monitoring part of this system. Parents are always aware of student achievement and grades. Students know their grades are always available for viewing at every moment. Does this take some of their privacy and empowerment to figure out their situations before interventions? This highlights the tension between transparency and privacy within digital agency.

Marie also provided insights into the challenges of digital communication policies and grading policies while trying to maintain student engagement. She reflected that since the pandemic, she was constantly told "grace over grades" and that this sentiment was not good for student motivation and engagement. She stated:

> Grace to me is like saying to an individual, you had XYZ happen now, and in a timely manner, we're going to deal with that and still make sure you're on track to where you need to be. Grace is not like a blanket - you do whatever you want, and at the end of the semester, you're freaking out because you're tanking your grades that you can turn in everything you could find. (Marie)

She feels that the time since the pandemic and the impact of more digitalization has allowed her students to do nothing until the end, and then try to pass her class. Marie is trying to balance leniency within digitalization and maintaining academic standards.

Critical Digital Literacy and Challenges to Agency

James adds to the idea of agency, student control, and his interactions with digitalization by focusing on the necessity of teaching students' critical digital literacy skills. He emphasized that while students easily access information using their phones, they often struggle to discern the legitimacy of their sources. James explains:

> Look, if a kid knows what they're looking for, they can whip out their phone and look it up. What we need to be able to do is teach them to discern what is legitimate information and what is not. That's the problem. And the problem is too many of these kids, you know, they want the easy way out. They're just going to grab the first thing they see.

His attempt to address this is to incorporate lessons on how to evaluate credible sources. James stated:

> Part of the lesson is like, 'OK, you're going to get on this legitimate university website and find a historical document and then go through and do all this stuff.' So they're being trained to be able to say, 'OK, well, I'm going to learn how to look something up. I need to know what I'm looking for and where to look, and once I get there, what is—this is a good source.'

Within James' reflection is an intersection of digital literacy, power, and education when traversing misinformation and disinformation. Digital platforms have the power to distort truth and amplify falsehoods. This meets Foucault's (1977) idea that knowledge and power are intertwined. This means that what is accepted and realized as knowledge is often formed by dominant power structures and can manipulate perceptions of truth. James states that while students have easy access to information through digitalization, they are frequently drawn to quick measures and cannot discern credible sources from false ones. By incorporating lessons in

which students must evaluate the legitimacy of information and teaching students how to be critical of sources, James aims to empower them with the skills they need to navigate and challenge power dynamics within digitalization. This approach James has adopted can address societal issues of the pervasiveness of mis- and disinformation that reinforce power structures, and his emphasis on critical digital literacy skills highlights the importance of critical thinking in using and interacting with digital content. James focuses on developing critical digital literacy so his students can learn to navigate and challenge power dynamics in digital spaces. At the same time, Marie observes her students' anxiety and lack of agency when faced with real-world communication, suggesting a lack in their preparedness for practical interactions beyond the digital and within the physical.

Marie told me a story about when some of her students faced difficulty when the college, they attended for advanced classes had a technology breach. She reflected:

> They [the college] had to redo everybody's passwords and all that stuff. So my kids -- some of my kids had to call the tech help desk. I thought they were going to have, like, full -- panic attacks because they had to talk to somebody they didn't know. I'm like, talking to somebody that you don't know should be easier than talking to people you do know because they don't know who you are. It should be a skill that you've had to learn… But they're like, I've got to talk to them on the telephone? I'm like, for like two minutes. Yeah. So they can get your password figured out. It's not a big deal, but they can't do it. They can't do it. (Marie)

Marie describes what she witnesses her students struggling with, which leads them to feel anxious. This highlights a gap in student agency regarding their abilities to manage everyday tasks that require them to interact with others, such as unknown others. Agency is a set of actions people take from within their environment (Biesta & Tedder, 2007) to produce effects (Biesta et al., 2015). People must feel like they are capable that they can take action, even when scared to do so. From Marie's perspective, people in high school should have acquired the skill set to feel capable of talking to strangers to produce a productive outcome to their problems. Therefore, they should feel able to communicate with unknown people and conquer such fears. She sees this as a manageable skill and part of how people develop agency. The students' struggle and unwillingness to handle this situation unveil unpreparedness or ability to exert control over the

problem and find solutions, a skill needed for dealing with life. Marie finds this lack of preparedness somewhat due to digitalization, as she says that her students are only comfortable communicating via texting and struggle with face-to-face communications that are uncomfortable. Marie's experiences with students' face-to-face (or speaking) communication illuminates an issue that Steve helps to identify in his own experiences: the gaps in students' digital literacy and self-management.

Steve discussed how the shift from remote learning exposed gaps in students' digital literacy skills and their abilities to self-manage and engage with a digital environment. He stated that students, when online, have "little to no accountability" because there is no one there to help hold them accountable. He also stated that when he interacts with students in a totally digital format for online learning, it becomes quickly evident that most "kids aren't that digitally aware. They know how to run their cell phone. They don't know how to use their email. They don't know how to use Zoom." Because of the lack of digital skills, Steve feels that digitalized communication can be a barrier to learning. This barrier implies the importance of digital literacy and digital agency (Passey et al., 2018) when using such digitalization for educational purposes. When students lack this skill set, their ability to take responsibility and engage with their education meaningfully is compromised and, therefore, also inhibits the promotion of digital agency (Passey et al., 2018). Steve's explorations of his student's lack of agency and limited digital literacy raise concerns about the actual effectiveness of digitalized education as it is currently practiced, which Phoebe also critiques through her reflection on the overwhelming inundation of digital communications within education. Phoebe also offers her insights on agency within digitalized educational spaces. She explained:

> I feel like there's so many positives of technology and it allows us to have so much more flexibility and so much more access to the world. From our classrooms, we can access so many things, but it's all, but so in terms of that, it's great. But then, in terms of the way that it impacts our attention and our energy, I do think it's very important to know, for me to note how email and having to deal with all the layers of communication from parents and administration. And it's constant, right? It's all; it's happening all the time. That I feel like that definitely diminishes our agency just because it takes away so much energy. (Phoebe)

Phoebe acknowledges the many benefits and positive attributes of digitalization. There is added flexibility to people's time; no longer are work hours the only times to call because you can email at any chance you have, and the receiver of the email can read it whenever is convenient to them, in an idyllic world. There is also flexibility and access to information that can expand human agency as it broadens the possibilities for communication and interaction. However, Phoebe also points to a downside. The constant influx of communication in various forms can be overwhelming. This reflects the idea that communicative action is ideally free from domination (Habermas, 1985a; 1985b). The constant pressure and the layer of communication that Phoebe describes can be seen as an intrusion of the system (the bureaucratic and institutional structures) into the Lebenswelt (Habermas, 1985b). This intrusion diminishes Phoebe's agency as it consumes her time and energy that she could otherwise spend on meaningful, reflective, critical practices and dialogues.

Phoebe's experience is also a reflection of the demands of the System (constant administrative communication), which infringe upon the Lebenswelt (her professional and personal space) and reduce her ability to engage in critical and meaningful communications. This overwhelming approach to communication can diminish her agency by diverting her energy from engaging in productive dialogue (as per the communicative ideal). While technology can facilitate communication and greater access (which enhances agency in some respects), it also introduces constant interruptions and demands that have an eroding quality to communicative action. This is an example of the paradox of digitalization reflecting Habermas's concern with how the System demands impact the Lebenswelt.

Evolving Subjectivity and Identity during Digitalization

Digitalization has impacted education in many ways but also raises questions about identity development and evolution through human interaction. Syd reflected, "And so, like, digital is OK. Like, we've morphed. But still, the threat is [to] human nature. We have to, as human beings, have contact." Her quote acknowledges the acceptance of digital tools in education, while emphasizing the necessity of maintaining human interaction. Syd implies an evolving nature of personal and social identity within the context of the digital age. Syd recognizes the use of digitalization but underscores the irreplaceable value of human contact, especially for learning, showing how identity is molded and constrained by digitalization and

face-to-face interactions. Syd’s acknowledgement of the importance of human interaction, while working in a digitalized environment, illustrates the conundrum some teachers face when maintaining their professional identity amidst digitalization. Britzman (1992) views identity development through a post-structuralist lens, suggesting it is an ongoing process influenced by changing social norms and contexts, which is reflected in Syd’s concerns. Syd's quote also reflects communicative action in emphasizing the importance of genuine face-to-face communication for mutual understanding and maintaining human connections (Habermas, 1981) within digitalization. Syd's reflections on teaching in different digitalized contexts reveal feelings of loneliness when teaching online. This comment initially struck me, as most of the teachers did not speak in terms of loneliness. She stated, "I am alone. I was lonely," offers perspective on the emotional limitations of digitalized communications. Syd's statement relates to identity (Britzman, 1992; Bakhtin, 1986) but also to the idea of participatory parity/agency (Fraser, 2008) and has consequences for agency. Digital interactions, at least in Syd's experience, limit people's ability to fulfill emotional needs through physical presence. Fraser's (2008) participatory agency emphasizes that meaningful participation makes genuine and equitable human interaction a necessity, which Syd's comment highlights in the context of agency and digitalization.

Marie spoke of the struggles her students are facing within increasingly digitalized contexts. She noted the challenges with traditional in-person methods like Socratic seminars, explaining:

> They have a hard time with Socratic seminars and lots of awkward silence. Boy, do I let them sit? I just let them sit because they need to. They need to be able to speak. Like, you all need to be able to speak, but you also need to be OK with the fact that there's silence and people are thinking and processing. People don't all process in a split second. Sometimes you need some things to sink in and to think about and then go, oh, yeah, now this is what I have to say about it. Because our brains don't work that way. You know, we've got to put it through our own context or our own constructs and figure out, well, what do I really think about what that person said? How did that match what they said? So now maybe I think this, and then this is why. Well, that takes time, and not everybody goes as fast as everybody else. (Marie)

Marie's Socratic seminar approach makes me reflect on communicative action (Habermas, 1981), which supports reflective and thoughtful dialogue with the aim of mutual understanding. Marie’s approach is rooted in concepts of identity (Rodger & Scott, 2008;

Mockler, 2011) and aligns with Britzman (1992). She expects her students to create and develop their identities through interactions and dialogues with others. As they engage in classroom discourse and take on different roles, they will shape and evolve their identities. As the questions I posed stemmed from the contextualization of digitalization, it seems that the struggle Marie sees in her students within Socratic seminars relates to how she perceives digitalization impacting the students' ability to hold dialogue in face-to-face situations. Often, digitalized interactions are superficial and fragmented, which can limit people's ability to maintain or grow transformative agency through public discourse. When discourse is simplified to sound bites and quick reactions, the opportunities for individuals to engage in reflexive and critical thinking, as Marie stated, which are paramount to agency, can be compromised. As Marie sees it, constant digital communication might influence the students' ability or willingness to interact in public discourse where they are physically present, as the constant contact with the digital prioritizes sensationalism (and not in the fashion of Lévinas' bodily sensation) over nuanced dialogue. The sensationalism and fragmentation that students constantly encounter have implications for development of ethical subjectivities, as proposed by Lévinas, who emphasized the importance of engaging with the Other in a meaningful and respectful way. The constant engagement that may not support these types of interactions can diminish the capacity for genuine ethical encounters with the Other, as people might not fully engage with a diversity of viewpoints or consider the ethical implications of their interactions. Marie's thoughts about her students' engagement with Socratic seminars also impact her professional identity and teaching practices. Some teachers exist in this space being aware of all the negative implications and outcomes of digitalization on students but are still expected to use the digital practices that they feel do not encourage the types of skills they themselves value. The teachers in this study share that they feel this tension but continue to carry on and do their work. Their capacity to work through their tensions shows that they are willing to grapple with the nuances in the changes to best teach their students. While some might adopt more technology and embrace it, others work with it as little as possible. These tensions impact the energy and mental durability of the work.

Maude observed that her students prefer email over face-to-face communication, "They will email me versus talk to me after class. Because they're embarrassed to talk to me. But they just send an email instead." Phoebe and Marie also expressed this sentiment. Such sentiments, to me, reveal the impact of digitalization on the communication preferences of students. This reflects the fluidity of identity (Britzman, 1992) as digitalization also impacts it. The preference

change also speaks to agency (Butler, 1990). Students are in a social context where forms of digitalized communication are the norm and expectation, and they embody and "perform" the norm through their action of digital communication. In this instance of students changing their preferences for communication style, a teacher's professional identity (Rodger & Scott, 2008; Britzman, 1992) is affected. Maude, Phoebe, and Marie adjust their roles, abilities, and expectations for student behavior and actions in communication. This change of student communication preference makes teachers address their own communication styles and values in order to connect with their students. Teachers might have to try to allot specific time to in-person dialog in order to re-teach those types of communication skills, while also supporting student preference for online communication. This adjustment might lead to a revaluation of teaching practices, and professional identities. These changes in communication preference also might make teachers reconsider their values about education itself, creating tensions for pedagogical practices.

The change in student communication preferences exhibits an adaptation to a digitalized world and also brings to light the challenges they face in developing confidence and communication skills. Phoebe further commented on the need for increased support for her students:

> They don't have a lot of confidence about what they're what they're doing is right and that they're on track. And some of that is, again, like it comes back to us like I'm trying to treat them like I normally treat juniors, but they're not. …So they need a lot of scaffolding. They need a lot of handholding to try to do that. (Phoebe)

James and Marie also talked about how the pandemic has uniquely affected student maturity and their interactions with digital tools, pointing out unique digitalization challenges related to the pandemic that differ from typical digital learning experiences. Phoebe's comment and the shared sentiment of James and Marie reflect how teachers maintain a commitment to their students while adapting to challenges they experience from digitalization. This adaptation can also influence teacher subjectivity, as teachers must reconcile their own beliefs, values, and practices with the changing needs and preferences of their students. These teachers' commitment and dedication to their students is similar to ideas within commitment theory as they are adapting their teaching practices based on the influence of the perceived costs and benefits of meeting

their students' ever-changing needs (Becker, 1960; Kanter, 1972). Such adaptation on the teachers’ part is also reminiscent of teacher identity as it showcases the fluidity of their identity within contexts (Rodgers & Scott, 2008; Britzman, 1992; Mockler, 2011; Bakhtin, 1986; Gee, 2001) to support their students effectively.

Maude highlighted another aspect of identity impacted by digitalization when sharing about her school's use of automated systems for managing student cell phone use. Maude stated:

> We don't take their phones away. We just write them up. It's all in PowerSchool [an LMS]. We don't even talk to them after that. I just say, "Your phone's out," and then they know. And then we just write them up on the computer. It's all on the computer. And then, you know, it's just automatic.

Maude liked this idea because it was streamlined and efficient. The students know what they are getting written up for, and it is done. It also brings to light an impersonal approach to discipline. Such a procedural and depersonalized approach to discipline, while efficient, can be seen valuing the shaping of identity and subjectivity through institutional norms and technologies above and instead of valuing personal interactions for such development. The process of "automatically" writing students up and recording their infractions in a computerized system aligns with the idea that the subject (or here, student) is constantly molded by and through institutional mechanisms. This depersonalization reflects how subjectivities and identities are influenced by broader systems of power rather than personal interactions. Post-structural theories argue that subjectivity is fluid and relational, created through interactions with social and institutional structures (Weiler, 1991; Duarte, 2021). The automated and impersonal approach to discipline, as described as the institutional practice in Maude's case, shows how subjectivities and identities are constructed within a framework of power/knowledge and institutional control. The disciplinary action here utilizes technology to enforce norms and control behavior, which reflects Foucault's (1977) conception of power/knowledge, where institutional practices and technologies (for this case, PowerSchool) are used to monitor and regulate behavior. The use of surveillance and documentation through technology embodies Foucault's notion of the panopticon whereby continuous observation creates a self-regulating subject (student). In this context, the technological system not only records the data but actively shapes and influences the students' behavior by eliminating the connection and addressing of the issue by the teacher, to an invisible

surveillance. This process reinforces the institutional power structures by embedding disciplinary mechanisms within the psychological framework, thereby normalizing this type of power.

James focused on how social media influenced his students' interactions in his discussion about the impact of digitalization. He stated:

> And it's like, they don't have the ability to sit and connect on a, like, a physical level. And social media is used as a platform to plan their fights in school. Oh, yeah. And it's, I mean, if you talk to any administrator, they will tell you. And I was--I actually have a principal license, so I was an administrator before we had all this stuff, so I couldn't even imagine it now. But so much stuff, it's a majority, actually, of the stuff that happens in the building, the genesis of it is in social media. (James)

James' observation illuminates further how digital platforms impact student behavior. This reflects the importance of the conceptualization of political identity awareness as it illuminates the need for students, teachers, and other educational stakeholders to learn how broader social and political structures (in this instance, like social media) influence individual and collective behaviors (Britzman, 1992) of students. James' observation is also reminiscent of participatory agency, as equitable and meaningful social interactions must be supported by learning and understanding the influences environments have (Fraser, 2008) in the context of a social media environment.

Interaction and Engagement

The long-coming but rapid integration of digitalization into education has changed the dynamics of teaching and learning. These changes show various challenges related to student engagement, authenticity, and the ever-changing roles of teachers. Marie commented that the thing that "bothers [her] the most" is digitalization's impact on students' ability to connect and relate to each other. Through the post-structural lens of identity (Britzman, 1992; Bakhtin, 1986), Marie's concern reveals how social structures and discourse (including digitalization) influence student (and teachers) abilities to relate to others and their social interactions. The digitalization of education impacts how students form and express their identities, which shows a tension between traditional (or less/non-digitalized) social practices and new realities partially brought on by digitalization. Marie's comment connects as well to conceptualizations of political identity awareness (Britzman, 1992), teacher identity (Rodger & Scott, 2008; Britzman, 1992; Mockler, 2011; Bakhtin, 1986; Gee, 2001), and demoralization (Santoro, 2018). Marie's comment shows

how social changes and digitalization impact teacher perceptions of student identities, which in turn impact how teachers interact with students. Marie's concern highlights critical thinking about how political and social structures influence her student's learning experiences and their self-perceptions, which is an essential aspect of political identity awareness (Britzman, 1992). Marie's comment also raises a compelling disconnection between Marie's view of education as a path toward self-improvement and her students' experiences. Many students, as the teachers in this study have alluded to find school to be boring and irrelevant, which leads to disengagement, which differs from Marie's view of education. The difference between Marie's perception of public education and students suggests there is a need for teachers to meet their students at their disengagement to help make education more engaging and fulfilling. Marie's responses to the digitalization of education impact her role as a teacher. The impact of digitalization on students' social interactions and learning processes calls for open communication to reconcile and grapple with differences between people's experiences and perceptions within institutional educational practices, which is commensurate with communicative action (Habermas, 1981). Maude observed student empowerment and disengagement, stating:

> I don't know if that's, like, self-care and, like, 'I am good how I am,' which would be great. If that's from self-care and, like, self-compassion, like, 'I'm great how I am,' and I'm always like, 'You are great how you are, but you can always improve and your skills can improve.' And I tell them that, like, 'I take classes that I'm trying to learn, and, like, I learn skills,' and I try to show them that. And I think sometimes they kind of get it, that, like, it's OK to learn new things. *But it's, like, something about the pandemic and the technology piece; it created so much student empowerment and checking out of learning.* [emphasis added]

Maude's thoughts are reminiscent of the disconnect between teacher and student view of education. While Maude views education as a space and time for self-improvement, skill development, and engagement, her students feel that they are good enough and do not need any self-improvement through their education (at least the education through school). The difference between Maude's view and her students creates critical challenges for teachers: if students do not share in their belief that education is a pathway for growth and engagement, what can motivate

their engagement in their learning? Although the literature on student disengagement is important and has valuable insights that could carry on into other studies, it is not the primary focus of this research. The disconnection between views of education makes teachers, like Maude, confront their role as a teacher and a need to adapt to respond to student perspectives, but might also make teachers feel less connected to their own values.

Maude attributes the combination of student empowerment and a simultaneous disengagement from learning to the pandemic in conjunction with digitalization. Her reflection brings up the idea of identity (Britzman, 1992; Bakhtin, 1986). Through Maude's view, her students' move to self-empowerment and disengagement shows how digitalization (in relation to pandemic after-effects) influences students' self-perceptions and their approach or lack of approach to self-improvement. This change makes it imperative for teachers to work toward an understanding of the social changes that are impacting student identity and learning.

Marie recalled a story that made her teacher identity and students' use of AI also salient for this study. She told me she had failed a paper and could not prove AI wrote it, though it was a "really bad paper." She called a student to her desk to discuss a different paper, wanting to discuss a potential red flag. When she reviewed the paper with the student, she explained to the student that while they referred to the author discussed in the paper by the author's first name throughout most of the paper, their last name was suddenly used in a well-articulated third page where the sentence structure had also improved dramatically. Despite not finding this type of advanced syntax elsewhere in the paper, she could not really prove it was AI but felt that through her 28 years of teaching experiences, she could find/sense such discrepancies. Marie feels that AI can help with some narrative writing. However, it lacks the students' authentic life experiences and voice, stating:

> While AI can kinda help you write a narrative unless you're going to completely steal somebody's life experience, um, it's got to be your experience. So I've figured out your voice, and now you're going to do this? I don't think so, so pulling out vocabulary, define what that word means. 'I don't know what it means.' That's amazing because you used it so nicely in this sentence in your paper. It just – things – I spend a lot of time spinning my wheels going: Is this an authentic piece, is this showing me what they know? Cause I can't really tell what you know if you're cheating. (Marie)

James also spoke about how cheating with the advancement of more digital tools is easier. Marie's struggle with detecting AI-generated writing and cheating reveals some authenticity and academic integrity issues. Viewed through the identity framework (Britzman, 1992; Bakhtin, 1986), this struggle highlights the tension between what is student work and the potential for dishonesty. Therefore, Marie's challenge is finding ways for her students to maintain motivation to keep academic integrity intact while adapting to AI and other newer digitalization as it influences her professional role and authority. While this could be a point of demoralization for some, it did not seem like it for Marie. Instead, she was ready and able to deal with the situation as it arose and willing to work with students to learn from the experiences. Reflecting on this analysis allows me to conclude that the teacher participants in this study offered a multifaceted view of how digital technologies impact their relationships with, expectations of, and perceptions of their students, and therefore impacts teacher subjectivity and identity. This is the core of Digital Binding, in that Digital Binding refers to the connections – or bindings – between teachers and student, and people and non-human digital tools. Digital Binding's connection to subjectivity, the complexity of the participants' experiences can be attributed to the interaction between digitalization's impact on attention, stress, emotional well-being, and social interactions. Digital Binding also shows the contrast between the promise of connection and the risk of fragmentation. Phoebe's concern about the fragmenting impact of digitalization on attention and energy highlights how it can impact learning. The cognitive load from digital multitasking has disrupted Phoebe's (and students') concentration. Digital Binding can therefore be a source of disconnection.

Marie's comments about the stress of managing multiple digital tools and the adverse effects of prolonged screen time on students especially highlight the need for balancing technological uses to prevent adverse impacts on student/teacher well-being and teaching practices. Phoebe and Marie note the flexibility that digitalization can offer their work and the relations they create with students. However, it can also diminish personal connections and cause a sort of disorientation that impacts students' identities and relationships. Maude points out that while technology can help with learning and teaching, it can also cause boredom, highlighting the need for teachers to learn critically about digitalization and the most impactful ways to use it while not overusing it. James' concern with social media impacts on student self-perception and

increases in student depression and anxiety show that there is a need for learning to have digital policies that can help address such issues.

Within a reflection on Digital Binding and agency, I see various effects of digitalization on student engagement, teacher roles, accountability, and privacy. From the teacher participants' views, students increasingly resist 'traditional' instruction while exhibiting gaps in practical skills and digital literacy. These observations make the case for more balanced approaches that integrate digitalization while continuing to build a student practical skill base. There is a tension between transparency and privacy with tools like ProgressBook and how it may affect students' sense of control. At the same time, teachers face challenges in managing overwhelming digital communications, which impact their agency and well-being. Overall, while digitalization offers enhanced access and flexibility, it requires careful implementation to maintain educational standards, support critical digital literacy, and address the practical and emotional needs of both students and teachers.

When reflecting on Digital Binding and identity, I find that digitalization has impacted educational and identity formation in educational spaces, which are part of Digital Binding, as its core is about teacher perceptions of digitalization's impact on students and teacher expectations of the student and their relations to students, therefore impacting their identity. Through Syd's reflection a critical tension is brought to light; between the utility of digital tools and the irreplaceable need for face-to-face contact, highlighting how digitalization, while advancing educational access, simultaneously challenges the development of genuine personal connections and emotional fulfillment. This concern resonates with Britzman's (1992) notion of identity as a fluid construct influenced by evolving social contexts and reflects Habermas's call for communicative action that fosters mutual understanding. Marie's observations on students' struggles in Socratic seminars and their reliance on digital communication reveals the friction between digital and traditional modes of discourse. Students often want to have brief, fragmented, online interactions rather than engaging in time consuming and uncomfortable situations of face-to-face dialogue. This ends up highlighting a difference between student desire for certain communication styles and the values many teachers place on reflective dialogue that develops skills of clear articulation of thoughts and engagement with others. Similarly, Maude's experience with automated disciplinary systems illustrates how technological efficiency can depersonalize interactions, emphasizing the dominance of institutional power structures over individual identity formation. The use of algorithms in disciplinary measures can reduce students

to data points and make teachers into the data collectors without communication. James' insight into social media's role in student behavior highlights digitalization's broader social and political implications, stressing the need for a nuanced understanding of how digital environments influence collective behaviors and individual agency.

I hope that what is becoming clear is that the interactions of students and teachers with digitalization often take precedence over student and teacher well-being, as well as their personal experiences, emotions, and perceptions of teaching and learning. Despite having a clear need for digitalization – which has been repeatedly acknowledged throughout the project- there is a prevailing sentiment of "having to" adapt without a need or desire for criticality on the implication. This pressure – along with the expectation that digitalization will shape their identities and perspectives, for better or worse – affects how teachers navigate digitalization in their work. Unfortunately, this adaptation might distance teachers from their core educational values, making the work of teaching more daunting, as the demands of digitalization overshadow the human parts of teaching and learning. These reflections suggest that while digital tools can enhance educational practices, they also necessitate a reevaluation of how teacher identity, agency, and connections with students are molded in increasingly digitalized learning environments.

Relational Ethics

This section connects relational ethics to the theme Digital Binding. Relational ethics is a lens that can lend itself to analyzing human and non-human interactions. Relational ethics emphasizes interconnectedness and transformation, helping people have agency and traverse moral ground beyond individualism. Relational ethics has been the lens for exploring my research questions: 1) How has teacher subjectivity, identity, and agency evolved in the digitalization of education? and 2) How do teachers perceive the potential of digitized education to foster participatory agency and support student praxis? These questions explore how digitalization restructures relations between people, and changes teachers' perceptions of their identities and subjectivity.

Relational Ethics in the Data: Into Digital Binding

> I mean, the digital, I think one of the biggest problems with digital education is there, there is no personal piece at all to it. Like I am just a person on a screen. They don't get to know me, and I don't get to know them. Like it's really just transactional. It's not personal. And so that also becomes a barrier. So your kids that are motivated and want to learn, that barrier doesn't matter to them because they want to learn. But the kids that are struggling and maybe from more struggling backgrounds, they need the personal piece. They need the personal piece. And without it, that whole idea that this is transactional for some of them, I mean, it was just hard for them to succeed in that environment. (Steve)

Steve's reflection highlights that digital education can feel impersonal and transactional. Pete also feels similarly in that he can get to know his students more in person, whereas, via a digital environment, he only has information on them. However, Steve also finds that this might not be a notable issue for students who are already motivated. But for those who need more support and personal interaction, the lack of a personal connection can significantly hinder their learning and engagement. Steve's work also raises another paradox: Do students who can access the education – or engage with the cognitive component, intellectual engagement, or knowledge acquisition – without the personal/face-to-face interaction mean that their education should be, or can be, devoid of it? Does this mean certain students do not need a relational ethic to learn? Are there spaces and times where relations do not further learning? Steve's thoughts align with theorists on the importance of relations in education, including Biesta's (2004;2005;2012) argument that relations are paramount to education. Biesta emphasizes that education should foster meaningful relationships rather than being purely transactional. Steve's concern highlights the barriers created when digital education lacks these personal, relational aspects. Considering this, Lévinas' (1981) emphasis on the essentialness of proximity to the other and personal interaction shows a limitation of the digitalization of education, where bodily sensations through embodied engagement are limited or diminished. Lévinas (1981) emphasizes the significance of the "Other" and how ethics are formed through direct, personal interactions rather than abstract, impersonal, or purely transactional ones, as Steve mentioned. According to Lévinas, ethical relationships require proximity and embodied engagement. In a digital environment where interaction is mediated through screens and text, the immediate, sensory experience – and the nuances of bodily sensation when in the presence of the Other is perhaps lost - or at least mediated. These challenges can also be present in face-to-face interaction, where various factors

can diminish the immediacy of connection; however face-to-face interactions do have bodily sensation which is not necessary in digitalized environments. Lévinas argues that ethics is fundamentally about being in the presence of the Other, experiencing their vulnerability, and responding to their needs directly. As per Lévinas' framework, the absence of this type of personal connection in digital education reflects a shortcoming in ethical engagement between teachers and students. While Steve's comments exemplify a critical need for personal interactions in education and the limitations (and perhaps new questions) digitalization provides, exploring how teachers perceive student choices between digitalized and face-to-face communication further develops the complexities of keeping relational ethics in a digitalized world.

Marie, Maude & Phoebe: From Touch to Text

> Just the overall effect on kids and how we help them learn to relate. I think that's the thing that bothers me the most. Like, why are you in my class sitting in front of me, sometimes right in front of me, and you're going to message me on Schoology? About something, but you're not going to come talk to me. Right. Like, kids will leave my room, and I'll sit down and look, and I'll be like, "Why did they just message me? They were right here. (Marie)

> They will email me versus talk to me after class because they're embarrassed to talk to me. But they just send an email instead. Because they have anxiety or something, but it ends up creating so much more work. Because then they'll email me, and then I have to wait, and then they come, like, during my -- they'll come during lunch or some other weird time. It's a time when you're supposed to -- And I'm like, "Well, the self-assessment forms on Google Classroom, it's four questions. You could write it on a piece of notebook paper." Yeah. But he'll come in and, like -- they're so odd about the way they do things. I think technology has changed that. (Maude)

> I will have students who email me during class. They are sitting in the room and I will see on the screen, "Ms. X, I have this missing thing. What is that?" Instead of just coming up to your desk or answering it. Yeah. Yeah. And so I'll sometimes turn and look at them

> and be like, "What the heck?" Or I will have seen that student, and a period or two later, they'll, they're emailing me asking me stuff, or it'll come in overnight, and I'll just ignore it. They'll, they walk in the room and, "Did you see my email?" I'm like, "No." Come talk to me. You're here in my room right now. But so email has become a kind of like post-it note of like, we do, I do that though." (Phoebe)

Marie is frustrated with how students use digital communication tools like Schoology even when they are physically present in the classroom. This behavior highlights a shift from face-to-face interactions, affecting the teacher-student relationship and potentially impeding more immediate, personal communication. Marie's quote addresses the issue of digital communication replacing face-to-face interaction. This shift can hinder the development of personal relationships and direct communication skills, essential for relational democratic education where direct interaction fosters stronger connections. Marie's frustration reflects the shift from direct communication to digital messaging, which can undermine relational learning ("Why are you in my class sitting in front of me, sometimes right in front of me, and you're going to message me on Schoology"). This shift impacts the relational dynamics of education by making interactions less personal and immediate. Marie's frustration with students using digital messaging instead of direct communication reflects the impact on relational dynamics in education ("Why did they just message me? They were right here"). Effective relational democratic education relies on face-to-face interactions, which are diminished when students prefer digital communication over in-person conversation. This is not to claim that the ideal approach is to eliminate digital communication entirely, but that face-to-face interactions are becoming less and so those that remain become more impactful.

There is a need to ruminate on which interactions should be made to be face-to-face rather than digital. Marie's frustration reflects Freire's notion of dialogic education ("Why are you in my class sitting in front of me?"). Freire argues that learning occurs through dialogue and personal interaction. Overreliance on digital interactions undermines socio-emotional learning and development. Her quote reflects the disconnection in educational settings where direct, personal interaction is substituted with digital communication. Lévinas' notion of proximity emphasizes that ethical interactions involve face-to-face engagement where the subject is responsive to the immediate presence of the Other. Marie's observation about students choosing digital messages over face-to-face conversations points to a diminished capacity for engaging in the embodied, ethical relationship Lévinas describes. The preference for digital communication

over personal interaction can undermine the opportunity to engage with the Other's immediate needs and presence.

Maude notes that some students, due to anxiety or discomfort, prefer emailing over direct conversation, creating additional work for teachers and complicating communication. However, it does not go unnoticed that there are plenty of occasions where a quick digital message is more efficient than a physical meeting. For public K-12 students, efficiency should not always be a primary motivator in our interactions. Some of these inefficient moments are the learning opportunities for students to develop critical communication skills. Maude points out how technology can create barriers to direct communication, which she feels leads to inefficiencies and an increased workload. This reflects the relational ethics principle that personal, direct communication is preferable for effective teaching, learning, and relationship-building. Teachers that have grown and learned with less digitalization than their students have found themselves in, bring the knowledge and capital of relations built on embodied interactions. This is how they know and do relations; their habits are built on these ways of knowing and doing. Currently the digitalization in education puts this in flux, meaning teaching relations are in flux as well.

Maude's experience highlights how technology can create barriers to direct communication, resulting in inefficiencies and additional work ("It ends up creating so much more work"). In relational ethics, direct, personal interactions are necessary, even as they are messy and more time-consuming, as they provide democratic means to which democratic "ends" follow. Lévinas discusses how bodily sensation and proximity are central to ethical engagement. The preference for emailing over in-person communication reflects a failure to engage in the immediate, embodied relationship Lévinas advocates. Maude's mention of students' anxiety and reluctance to communicate in person highlights a breakdown in the direct, face-to-face interaction that Lévinas sees as essential for recognizing and responding to the Other's needs. This behavior signifies a move away from the ethical responsibility and vulnerability inherent in direct, personal engagement.

Phoebe's quote is similar to Marie and Maude's in that her students often prefer or rely on email and text rather than face-to-face communication during and after class. This student choice raises questions about how the reliance on digital communication affects students' understanding/perception of time and the nature of interactions. Are humans moving toward a society where text and email are the primary means of communication, as they have become with

print? The finite nature of life makes me consider whether our experiences are diminished when everything is constantly accessible, including communication. Are students and teachers keeping better records, or are they overwhelmed by the sheer volume of digital information, including digital communications?

Phoebe's reflection shows how her students use email in what can be seen as an inappropriate or ineffective manner, even when they are physically present. Using these communication tools illustrates the limitations and drawbacks of digitalization in creating meaningful interactions and learning, which are imperative to relational democratic education. This type of communication, while in the physical presence of a teacher, can disrupt the flow and timing of in-class communication, be it formal or informal. Her insight that email has become like a "post-it note" illustrates a shift in communication practices within educational settings. Using email in this way reduces what should be nuanced interpersonal interactions into brief, transactional exchanges. This shift interrupts and displaces the values - or ethics (Lévinas, 1981) inherent in the face-to-face interaction with the other. Lévinas' (1981) concept of proximity posits that ethical interactions require face-to-face engagement, where individuals are responsive to the immediate presence of others. Phoebe's observations of her students' communication behaviors suggest a diminished capacity (or desire) to engage in the embodied, ethical relationships that Lévinas describes. The preference for digital communications over personal interactions impedes human opportunity to confront the immediate needs and presence of the other.

Ethical Challenges and Paradoxes: Communication, Engagement and Authority

James described his practice of sending personal emails to the parents of his students. He sends them to the top five performing kids' parents in the class every eight at midterm and the end of each quarter. He said that this small gesture, a small act of communication that takes minimal effort on his part, is deeply appreciated by the recipients of the emails, often brightening their day. He remembered:

> I remember one a couple of years ago, the lady was having, like, an awful day, and she's like, 'you know, I really needed to hear this,' and like, your thinking - on my end, it was simply a matter of clicking a few buttons, almost mindless on my part, yet I helped somebody who’s having a crappy day. (James)

He highlighted the significance of these little gestures in that they are small but can have a great positive impact, as he often gets comments from parents or even from students. Also, James found that he gained personal satisfaction knowing that this little action helped others and improved someone else's day. Although some view digital tools as impersonal, James actively uses email to provide personal recognition and encouragement, receiving positive responses from families.

James' story illuminates possible limitations of Lévinasian ethics when applying it to modern communication contexts. The impact of his emails in creating positive responses and bringing happiness to parents and students suggests that ethical impact can be achieved even without direct, face-to-face interaction, however brief. This raises more paradoxical questions about digitalization and whether Lévinas' embodied responsibility and proximity are as essential and meaningful in digitalized contexts. If ethical responses can be meaningful and significant through mediated platforms and communication, then perhaps Lévinasian ethics needs to adapt and made fluid to fit current contexts. In ethical relations, the notion of proximity might need reevaluation. When relating digitally, the idea of "closeness" might need to be redefined. Is emotional proximity achievable through virtual means, or does it inherently require physical presence? At the same time, how does responsibility manifest in mediated interactions? If a teacher's supportive email fosters positive ethical engagement, regardless of the absence of direct, face-to-face interaction, how then might we start to view accountability and responsibility?

However, while James has experienced positive impacts from his emails, he concurrently finds people’s relationships with their phones, particularly students’ relations with their devices appalling: "It's sickening. And that's like their relationship then. It is. It is. It absolutely is. And that's a shame. Yeah. I mean, it's like--and I see it in my own house" (James). This paradox highlights his frustration with, in his view, the superficial nature of relationships mediated through screens, reflecting on how digitalization impacts interpersonal connections and interactions. Lévinas (1989) critiques rationalism and the process of reducing ethical considerations to abstract reasoning. James' perspective on "sickening" screen-mediated relationships shows how he feels digitalization can diminish the depth of human connections, thereby reducing interactions to only the appearance of interaction rather than embodied engagement. While James uses digital tools for positive communication, he simultaneously grapples with the ethical implications of a world increasingly dominated by screens.

In conversation with Maude, we discussed her perception of how student behavior has changed in art class over time. Maude finds that there used to be more interactive teaching where teachers would work closely with students, and both students and teachers would physically touch their work. Maude explained that she no longer feels she can use such methods because students have become uncomfortable with close proximity and physical interaction. She noted that she sees students struggling with the ability to gather around a table or engage directly with each other. When they are close, they either seem disengaged and uncomfortable or cannot control their behavior toward other bodies. She finds that the students she has now prefer to remain isolated, often staring at screens, "They're just so comfortable looking at a screen." This has led to what she sees as a decrease in student engagement and also changes in classroom dynamics, especially since the pandemic. Maude feels these changes have made fostering collaborative and interactive learning environments more challenging. Maude's adaptation to more distant teaching methods illustrates how changing student preferences impact teacher/student and student/student educational relationships. This trend toward digitalized education is changing classroom dynamics and fosters distance, more isolation, and screen-based experiences.

Maude's comments raise questions about the implications of this trend for democracy in education, as she observes it diminishing opportunities for collaborative problem-solving, dialogue, and creativity that come from engaging with diverse perspectives. It also highlights competitive individualism (Blackmore, 2020), where students focus is singular rather than engaging in shared, interactive learning experiences. Maude's observations that students refuse to engage in physical closeness and their discomfort with direct interaction further complicates this learning environment. This refusal from the students to work on handling physical proximity and direct interaction not only impacts students' ability to work together but also contributes to a sense of disengagement and boredom (as per Maude's view). The focus on screens, Maude notes, often leads to a passive form of learning where students are less interested and inclined to participate in activities, work together, or strive to improve, which can result in increased boredom and a lack of enthusiasm for learning. Maude's experiences show how the shift she has experienced from close and interactive teaching to more distant and digital teaching reflects

more profound changes in the classroom. The move from communal to individual workspaces, coupled with a preference for screens over personal interaction, affects the relational and democratic aspects of education.

The educational relationship is a pillar of relational democratic education, shaping learning, subjectivity, and identity. Biesta (2004) suggested that education should focus on the relationality of the relationship between the teacher and student rather than individual constituents. Here, Biesta accentuates the moral and ethical dimensions of educational interactions, which are imperative for student development and democratic engagement. Relational ethics centers on the relationship as the moral agent, which illuminates identities and agency that emerge through our interactions with others (Willet, 2012). This is similar to Biesta's (2005) idea of "enunciative agency" as both the teacher and the student play active roles in a shared learning environment. From Maude's comments, it seems that when students focus on screens, which are dictated to be on screens or preferred, opportunities for relationality as the moral agent are limited. Dewey's (1930) concept of democracy as a "mode of associated living" is part of this relational democratic educational view. It involves continual engagement and interaction within shared social contexts. The relational aspect of education is central to the democratic process because by interacting and engaging in vulnerability and dialogue, individuals participate in inclusivity and critical thought development to support or challenge common aims and goals. As Maude is seeing more and more, screen-based learning seems to depart from democratic ideals as it limits interaction and communal experiences that support social responsibility and agency.

Bobby discussed how isolation in digital learning environments leads to disengagement and lack of accountability among her students. She stated, "I think some students are better in person because they're looking at their peers. They're not going to sleep on their desk when their friends are watching. You know, they don't have something acting as a true authority." This suggests the importance of peer presence and direct supervision in education, which can help keep students engaged and focused. Bobby's observations on digital versus in-person learning highlight how isolation in digital environments can take away from engagement and participation. Foucault's concepts of power/knowledge and regimes of truth explain why in-person learning spaces might create better engagement.

Foucault (1980) argues that knowledge intertwines with power and societal regimes of truth, meaning that existing power relations shape what we consider valid or authoritative knowledge. Within the context of education, the authority exerted by teachers and the social pressures (or authority, from Bobby's view) from peers act as productive mechanisms of power that influence student behavior and learning. As Bobby describes it, the presence of a "true authority" reflects Foucault's notion that power is repressive and productive. In-person learning environments can offer a system where students engage with authority figures and peers as embodied interactions, reinforcing accountability and preventing disengagement. In isolated, self-motivated, and directed digitalized learning environments, immediate supervision and peer presence are absent, leading to decreased motivation and responsibility. Foucault's (1977) idea of power as diffuse and decentralized supports the idea that identity and behavior are not fixed but fluid, continually molded by interactions and discourses within educational settings. This fluidity is evident in how their immediate social and educational contexts influence students' engagement and learning. Bobby's emphasis on the benefits of in-person learning for engagement and accountability resonates with Foucault's theories on power/knowledge and the fluidity of identity. The structured authority and peer interaction in physical classrooms act as mechanisms of power that can foster a more effective and engaging learning environment than the isolation often experienced in digital settings. Bobby's observations on the benefits of in-person learning show how she feels direct engagement and supervision can offer accountability and focus. Maude similarly reflects on the difference between in-person and digital interactions, noting that digital platforms might offer more frequent interactions but often lack depth and ethical engagement, which are important for meaningful relationships and getting to know people.

"You don't have time to talk in real life. Yeah. And that's where the real fun is, and the real communion and the real community building is. …More contact but less knowledge of who people are" (Maude). Maude's comment critiques digital communication in that it creates opportunities for more frequent interactions but lacks the depth and meaning needed to connect with others. According to Lévinas, ethics is first philosophy, meaning ethical relationships and responsibilities precede and make other philosophical inquiry possible. Understanding ethical responsibility to others is more fundamental than engaging with what it means to be or to know (Lévinas, 1981). The "face" of the Other demands our ethical response, and this proximity is essential for learning of the other's vulnerability and needs, which creates a meaningful

relationship. Digitalization, as it offers constant or more contact, as Maude points out, seems to fall short of fostering meaningful connections. Lévinas discusses this because digitalized connections can distance people from the sensitivity required of centering relations. Furthermore, Lévinas' ethics suggest that ethical interactions are embodied where the ethical responsibilities people feel become salient when there is a visceral experience of the Other's presence. Maude's reflection echoes this in that she feels digitalized communications take time away from visceral experiences with the other and add to an efficient need for a disembodied and less intimate interaction that tends to diminish the elements of ethical responsibilities to the other.

Within the relational ethics framework, moral worth is tied to the interactions between entities and subjectivities. Digital spaces have so far offered lesser capacity for embodied communication, which impedes the foundation of relations. Maude's concern that digitalized communications led to more contact but less knowledge of who people are signifies this limitation. The relational ethics framework values direct engagement, where one responds to the vulnerabilities and needs of the Other. This requires proximity and immediacy. Digital communications are often asynchronous, which does not foster the opportunity for ethical engagement with the other. The compromise of relations for convenience and constant contact suggests that digitalized communications cannot foster the meaningful relations required for ethical engagement and community building. Building community is central to transformative education (hooks, 2014) and care ethics (Noddings, 1984). The limitations noted by teacher participants, like Maude, regarding the ability of digital communication to foster meaningful relationships, highlight related issues in education. While these tools are designed to enhance connectivity, they may also change the relationality of relationships—for example, Steve comments on the evolution of online grade books:

> But parents now expect, they expect access to their kids' information, and they expect it instantaneously. They want to know, "What's my grade? What are the assignments? What's my student missing?" And they expect to simply be able to look that up online. And that is all findable now. You can look all that stuff up now, which makes, I think our online grade book is really more of a communication device than it is a grade book. It's a communication with parents that a parent can see their student's grades and, what's missing and why the grade is what it is. I mean, it shouldn't be black and white anymore.

> …I think Progress Book, which is the online grade book, of all the things I have seen in my career that are digitally new, that's been the most impactful. Because it has reached parents. It's reached parents. The student can see their grade. The parent can see their grade. Yeah, that's been impactful.

Steve's comment is about the role of online grade books in his practice. His comment shows how grade books used to be simple record-keeping but have become communication devices that foster interactions between parents, students, and teachers. This evolution in record keeping to communication tools is emblematic of societal changes reflected in educational practices, such as how information is accessed, created, and disseminated. Steve's comment made me reflect on some key transformations from digitalization. Digitalization enlarges and enhances access to information and changes educational relationships and communication. Online gradebooks now serve as a tool for connecting parents and teachers, which sometimes requires constant updating and knowledge dissemination. Foucault (1977) suggests that technologies impact subjectivities and power relations. In this context, the online grade book can be understood as a mechanism through which power is exerted, but making the educational performance of students constantly available through online grades impacts how students, parents, and teachers interact with each other and with the way understanding educational outcomes is valued.

Ethics of care emphasizes the importance of reciprocal relationships and empathetic engagement in education (Noddings, 1984). Moral action arises from caring relationships, so educational practices should prioritize meaningful connections and attentiveness. Online grade books, while making the flow of information more accessible, also make me question the impact of this technology in terms of reciprocity and connection. Open dialogue and community building are imperative to feminist pedagogy (hooks, 2014), and education should support these ideals in tandem with critical engagement with power and oppression. The digital grade book Steve described can be seen as a tool that upholds hooks' (2014) call for inclusive and communicative learning spaces. Still, the engagement of how online gradebooks are mechanisms of power and surveillance needs to be addressed. To uphold tenets of feminist pedagogy, investigating how digital tools reinforce existing power structures or practices, like the emphasis on grades as the sole outcome of education, must be part of the practice of using such tools. Foucault's concept of power/knowledge (1977) and the docile body offer a framework for things to investigate when using digital tools. The panopticon metaphor shows

how surveillance and normalization can induce self-regulation and conformity. The integration of digital tools, like the online gradebook Steve speaks of, could be evaluated as a form of surveillance where students, teachers, and parents internalize educational norms and expectations through the constant visibility and monitoring.

Reflection on Relational Ethics and Digital Binding

Relational ethics contributed to a more robust understanding of relations within the theme of Digital Binding. The relational ethics framework used for this project emphasizes the importance of interpersonal connections and moral responsibilities within relationships. It suggests that ethical engagement involves care, empathy, and direct engagement with the Other, which is paramount for community building, transformation, and democratic educational aims. When this is applied to Digital Binding, relational ethics further highlights both the potential and limitations of digitalization in creating and maintaining meaningful educational relationships. Therefore, there are implications for student-teacher relationships, as seen through Steve and Pete's concerns that digitalized education can feel impersonal and transactional. Steve feels that digital environments lack personal touches that are imperative for some students to learn. Such concern is similar to how Lévinas (1981) places importance on proximity and embodied engagement in ethical relationships. Marie, Maude, and Phoebe expressed frustrations with students' reliance on digital communication, like email, as they feel it diminishes students' capacity and interest in face-to-face communications. Students' communication preferences produce challenges for the framework of relational ethics, and communication hinders students from creating deep, ethically responsible relations with others.

However, applying relational ethics to Digital Binding always creates paradoxes and contradictions. James' view that sending personal emails signifies one such paradox. While critiques argue that digital tools are impersonal and disembodied, James' emailing shows that these tools can be used and felt to offer personal recognition and support. This suggests that digital tools can have ethical value when used thoughtfully and that there is a need for further investigation of relational ethics in digitalized educational contexts. Maude reflected that her students were becoming uncomfortable with physical proximity. This impacted her classroom teaching methods and reduced opportunities for working together and interactive learning

experiences, which are essential parts of democratic educational means and aims. As Maude and James' views offer challenges from and within digitalized educational environments, Bobby also discussed the importance of in-person presence in maintaining student engagement and accountability.

Bobby observed a lack of accountability and engagement for her students in digitalized environments. This implies that physical presence and supervision maintain student focus. Foucault's (1977) idea of power/knowledge is connected here in that in-person learning environments foster engagement through direct supervision and social pressures, often missing in digital contexts or pressure within echo chambers in digitalized platforms. Steve's experience with the online gradebook implies that digital tools constantly change educational communication and relations. While the tools enhance accessibility and transparency, they also create issues for reciprocal relationships and community building. The digital gradebook is a communication device, but it offers constant visibility, or as Phoebe put it, it is for an audience, and monitoring can influence behavior, expectations, and subjectivities. As digitalization changes educational communication and supervision, Dewey's concept of democracy becomes increasingly salient, as it highlights the need to reevaluate relational engagement in the changing educational contexts.

Dewey's notion of democracy as 'associated living' highlights the importance of relational engagement in education. The more digitalization of education happens, more digitized communication, more digitalized educational platforms and record keeping, and more online learning spaces create more need to reflect on the pillars of relational ethics within these changing contexts because, as teacher participants in this study pointed to, there are a myriad of ways digitalization is impeding on interactive, engaging, and relational learning. This calls for a closer inquiry into how relational theories, like Biesta (2004) and Noddings (1984), can help illuminate the challenges posed by digitalization. Biesta (2004) focuses on the relationality of education, and Noddings (1984) emphasizes care ethics, and both emphasize the importance of interpersonal relationships and moral engagement. When viewed through these lenses, Digital Binding reveals that while digital tools can be used in communication, they create paradoxes and often fall short in providing space and opportunity for ethical and reciprocal relations that are paramount for democratic education. Relational ethics is, therefore, a helpful framework for viewing the complexities and nuances of Digital Binding.

Digitalized Deficit Citizen

Throughout the various stages of this project, spanning literature review, data collection, analysis, and writing, an idea formed that I called Digitalized Deficit Citizen. This phenomenon is informed by my experiences, fieldwork, and theoretical explorations and was, in part, addressed in the literature review under a subsection title of a similar name.

The concept of the Digitalized Deficit Citizen emerges at the intersection of the educational deficit model and the ongoing digitalization of education. It explores how the increasing reliance on digital tools in educational settings can intensify the shortcomings of deficit thinking. Deficit thinking blames students' educational challenges on their supposed deficiencies, while ignoring systemic issues and oppressive factors that influence their experiences. By showcasing this, the Digitalized Deficit Citizen raises questions about subjectivity, agency, and relational ethics in digitalized educational contexts.

As I find it through literature, subjectivity refers to the fluid and dynamic nature of identity. Social, cultural, and digital interactions shape subjectivity. Subjectivity suggests that the self is not fixed or stable but is continuously created and recreated through interactions. This suggests that our internal experiences and identities are intertwined with external influences such as social expectations and cultural power structures. Subjectivity is, therefore, relational and constantly evolving, influenced by personal experiences and social forces. Within digitalized education, subjectivity also intersects with agency and ethical responsibility issues, showing how digital environments impact teacher and student identities and roles.

Relational ethics is an approach to moral philosophy that highlights the importance of relations and interactions between entities, whether people, groups, or other entities, in determining moral value and ethical obligations. Unlike ethical traditions that focus on individualism, freedom, or happiness, relational ethics prioritizes care, community, and harmony. Relational ethics come from prominent philosophical perspectives such as Confucianism, African traditions, and feminist and care traditions. Relational ethics has vital pillars, including 1) Relationality: the moral status of entities is defined not just by their individual qualities but by their relationships and interactions. Moral worth comes from these connections; 2) Critique of Individualism: individualism is challenged as it focuses on the interdependence and interconnectedness of people; 3) Embodiment: ethics are not abstract or rational but come from embodied experiences and direct interaction. The ethical demand comes from the presence and

vulnerability of the Other; 4) Ethical Responsibility: responsibility and ethical actions come spontaneously from relationships rather than being dictated by universal moral norms or rules. The educational implication is that education should be based on relations between teachers and students, students and students, that promote mutual respect, empathy, and inclusive learning environments.

The Digitalized Deficit Citizen is built on four core aspects:

1) Deficit Model in Digital Context: This aspect draws on critiques like those proposed by Gloria Ladson-Billings. It suggests that digital tools and algorithms often perpetuate and even amplify low expectations for students. In educational technology, predictive algorithms and data-driven decisions may reinforce stereotypes and biases rather than challenging them. For instance, if educational technologies are programmed with biased data, they may predict lower capabilities for certain groups of students, thereby maintaining and intensifying existing inequalities rather than addressing them. Also, Maude pointed out that her students get bored with constantly using screens, which implies that their constant use for educational purposes is disengaging and does not challenge student learning. As Phoebe and Maude put it, the fun comes from interacting.

2) Impact of Datafication: This aspect refers to converting student performance and behaviors into quantifiable data points through standardized measures. Doing that often aligns with deficit thinking as it focuses solely on measurable outcomes that can reinforce low expectations for marginalized groups. For example, when educational technologies use biased data to assess student capabilities, they may predict poorer outcomes for certain demographics, therefore perpetuating stereotypes and maintaining a narrative of deficit. This can lead to a self-fulfilling prophecy, where students labeled as "deficient" get less support and fewer opportunities to develop. By prioritizing quantifiable metrics over qualitative, contextual factors, datafication can misrepresent students' and teachers' educational experiences, further solidifying the deficit model. As a result, teachers may overlook students' diverse and unique realities, therefore widening the gap between actual learning experiences and the metrics used for evaluation.

3) Surveillance and Self-Silencing: Many technologies used in education surveil the users. This surveillance can lead to self-silencing among both teachers and students. This self-silencing is a reluctance to express dissenting views or to critically engage due to fear of being monitored. Such a space stifles necessary democratic participation and civic engagement,

reinforcing the assumptions of deficit thinking by suppressing critical dialogue and alternative perspectives.

4) Technological Determinism and Neoliberalism: This aspect critiques the view that technology inherently drives educational progress (technological determinism/solutionism) and the influence of neoliberal educational policies. The normalization of datafication and digitalization in education often support existing power structures and perpetuate social inequalities. This framework reinforces a hierarchy where certain groups face greater surveillance and control while others maintain more agency and privilege. It makes salient how digitalization and policies can consolidate power rather than challenge entrenched inequalities.

There are political and social implications of the Digitalized Deficit Citizen. People become subjects of complex power dynamics embedded within data and technology systems. This reality can diminish their agency, limiting their capacity to resist or challenge dominant narratives. While digitalization offers avenues for increased connectivity and access to resources, it simultaneously enforces surveillance and control mechanisms, in some instances through echo chambers and filter bubbles. This paradox reflects Foucault's concept of the 'docile body,' where increased connectivity and information access can lead to greater control and reduced opportunities for personal and collective growth and creativity. To illustrate the practical impacts, I utilize one example story from Maude to outline how this concept can be applied.

Maude and I discussed that her students have become more disengaged and resistant to learning, which she feels especially since the pandemic. Maude notes that while students enjoy using technology and are comfortable on screens, they often seem uninterested in direct instruction or feedback. They prefer to stick to their existing beliefs and skills rather than improve. The conversation then touched on how digitalization led to a sense of empowerment that paradoxically makes students less open to learning and self-improvement. Together, we reflected on how students might struggle with accepting help, as they may perceive it as a sign of inadequacy rather than an opportunity for growth.

In this dialogue, our conversation revolved around how students perceive self-care and improvement and how increased digitalization has impacted their engagement with learning. There, it became evident that there was a tension between valuing yourself as is and the desire or need for effort and improvement. Secondly, the impact of reliance on digital tools led to disengagement. Students turn on their screens and neglect much of their education. Third, Maude

pointed to the tension between empowerment and disengagement. Despite what comes off as empowerment, students often exhibited a lack of interest in self-improvement or learning, which was puzzling to Maude and also myself.

In the Digitalized Deficit Citizen context, student disengagement and the impact digitalization has on learning can be seen as a manifestation of this phenomena. The constant use of screens may have led to boredom and disengagement, which is connected to the notion that digital tools can reinforce low expectations (even for oneself) and fail to challenge students effectively. While digitalization has the potential to add to a reduction in inequalities by providing new learning opportunities and access, it often exacerbates existing disparities when it fails to address students' complex needs and motivations. Instead of fostering meaningful learning, engagement, and growth, digitalization can reinforce inequalities, particularly for students who are already marginalized or struggling.

Secondly, student focus on screen time and data-driven educational practices led to a superficial engagement with learning, where quantifiable metrics overshadow deeper democratic and relational educational needs. The overemphasis on measurable outcomes from datafication may have distorted students' learning experiences, leading to disengagement and a lack of ability to connect to the content or others. Third, digitalization seems to have contributed to a school culture where students might feel observed and pressured, reducing their willingness to engage fully or seek help. Surveillance through digitalization can lead to self-silencing, where students (or teachers) feel monitored in a dehumanizing way and might cause a withdrawal from active participation and critical dialogue. This can reinforce deficit thinking by discouraging meaningful interaction and the ability to ask for help. From Maude's perspective, students rely on technology and digital tools for their education, especially since the pandemic. While students rely on them for their education, they are also given and expected to use digital tools to learn from school initiatives. This seems to reflect neoliberal values of efficiency and data-driven performances, which tend to overlook relational aspects of education. Technological determinism and neoliberalism perpetuate existing power structures and inequalities as digital tools and policies prioritize efficiency over meaningful relations and engagement, which reinforces the aspects of the Digitalized Deficit Citizen.

The Digitalized Deficit Citizen is a frame to think through the issues that digitalization in education can create by reinforcing disengagement, datafication, and surveillance. Maude's dialogue raised some of these issues, such as students' disengagement with learning despite

technological advances, which reflect systemic problems in how digital tools are integrated into education. These tools often add efficiency and convenience but fail to address the need for relationality and meaningful engagement in an associated living to support student improvement. This, therefore, reinforces a deficit way of thinking about students and overlooks the complexities of their subjectivities through relational experiences.

My hope is that the Digitalized Deficit Citizen construct, as an outcome of this project, will offer educational stakeholders - teachers and educational academics, a framework or simply another pathway to think through the limitations of the digitalization of education while reflecting on how to engage with digitalization in education more relationally and responsibly. It might be helpful for teachers to think through some digitalized educational disparities regarding how digitalization and technologies can perpetuate educational deficits rather than addressing them. Teachers can use this to critically assess and select educational technologies that help limit stereotypes or bias. It could also help teachers with informed decision-making by helping create an awareness of how predictive algorithms and data-driven decisions impact students, which helps teachers become advocates for more equitable and inclusive digitalized practices. Secondly, teachers might be able to use this concept to enhance student engagement by recognizing that constant screen use can lead to disengagement. Teachers might limit student screen use when permitted and use more varied and interactive teaching methods that incorporate technology but balance it with other strategies for relational engagement. Also, as it is assumed, technology and digitalization can offer more personalized learning; however with Digitalized Deficit Citizen in mind, teachers might be influenced to think through how digitalization creates personalized learning and try to balance that with an learning environment that promotes interaction, and learning-by-doing instead of by passively being on screens most of the time, which can mitigate some of the issues involving student boredom and disengagement.

Through the critique of datafication, teachers can become more critical of how student data are used, and to advocate for approaches that consider other contexts of students and teachers rather than solely using quantifiable metrics, which stresses an ethical engagement with data. This criticality might lead to a more mixed-methods approach to assessment, where qualitative and quantitative data are used to assess in order to provide a more nuanced but comprehensive understanding of student/teacher progress and needs. This criticality could also support democratic participation. When thinking through issues critically, teachers can be better

situated to create ethically sound spaces for critical dialogue and dissent, which can counter the stifling effects of surveillance and foster an educational environment that supports diverse perspectives, risk-taking, and democratic engagement.

Conclusion

In this final analysis chapter, I explored Digital Binding and how it connects with the research questions through digitalization, neoliberalism, subjectivity, identity, agency, and relational ethics. Digital Binding reveals how digitalization restructures educational relationships through teachers' perceptions of its impacts on themselves and students.

The teacher narratives from this study reveal that these neoliberal reforms often lead to a more transactional and less personalized approach to education, which in turn affects how teachers view their roles and interactions with students. The integration of digitalization into education, while promising innovation, often exacerbates existing inequalities and challenges the quality of personal ethical engagement in teaching. Teachers' perspectives illuminated how digitalization impacts their professional identities and pedagogical methods. Digitalization influences teachers' expectations for their students and their views of students' identities and agency. Teachers must grapple with digitalization, as it affects their own identities and agency while also influencing the subjectivities and agency of their students.

This chapter also discussed the nexus of relational ethics and Digital Binding; how ethical aspects of relationality are reflected in Digital Binding, negotiated and, at times, challenged. The teacher's comments helped highlight the importance of personal face-to-face interactions and how impersonal digitalization practices hinder opportunities for meaningful learning relationships, thereby impacting the ethical aspects of teaching. Despite the many benefits of digitalization, they seem limited in their ability to encourage relational engagement required in democratic education.

I then discussed the emergent phenomenon of the Digitized Deficit Citizen. This concept encourages engagement with digitalization's educational and broader social consequences critically and applies the idea of educational deficit thinking to the digitalization of education, where students' educational challenges are often overlooked when digitalization is overused. Instead, it simplifies students (and teachers) to data points without considering their experiences and relations. The Digitalized Deficit Citizen highlights how digitalization can lead to disengagement and meaningless learning, as evidenced by Maude's story in an effort to

demonstrate more democratic, relational, and ethical ways to promote inclusivity.

Chapter VI

Conclusion

The aim of this research was to explore the connection between the digitalization of education and teachers' perceptions of their subjectivity and agency, as well as their relationships with students within K-12 education in the United States, drawing from relational ethics. Recognizing that public education is political and ideological, I aimed to illustrate how digitalization restructures teachers' identities, agency, and pedagogical values. Through narrative inquiry, I examined the ethical implications of digitalization and its alignment with teachers' underlying values of relational democratic aims and relational ethics in education.

The findings from this research provide insights into the original questions: 1. How have teacher identity, subjectivity, and agency been challenged and uniquely developed within the digitalization of education? 2. Despite the often-touted democratic nature of digitalization in education, how do teachers perceive its potential for fostering participatory agency to support their students and their praxis? Overall, the findings indicate that digitalization does have a part in restructuring teacher identity and subjectivity. Teachers observe a transition towards more transactional educational interactions, which they feel hinders relations with others. This change affects how teachers perceive their professional identities and subjectivity and how they navigate their sense of agency. Some teachers recognize digital tools' organizational/bureaucratic benefits, but many also have concerns about how they disrupt meaningful relational moments. The reliance on digitalization has led to tensions between technological demands and personal educational values, resulting in many teachers struggling to maintain their pedagogical ideals or restructuring them. Moreover, the challenges of creating and maintaining relationships in increasingly digital contexts have raised questions about the efficacy of digitalization in fostering democratic educational practices. As a result, teachers grapple with their evolving identities, often feeling a sense of disconnection from their roles, undermining agency and engagement.

Complementary to previous studies done on relations in education (Lundberg & Schreiner, 2004; Ryan et al., 1998; Pascarella & Terenzini, 2005; Poirier & Feldman, 2007; Trees & Jackson, 2007; Komarraju et al., 2007; Zepke et al, 2010; Strauss & Volkwein, 2004; Calvo et al., 2010; Hughes et al., 2008; Trigwell, 2005), this research confirms findings, while adding new directions. Like these educational relationship studies, this research conceptualized relations and perceptions of teachers. However, where these studies focus on evidence about

"positive" teacher-student relationships fostering positive educational outcomes, this research only focused on the relationship, with no qualifier.

The teacher narratives also contrast the perceived democratic potential of digitalization and its actual implementation in educational spaces. Many teachers expressed concerns about student disengagement due to the focus on datafication and surveillance, which can stifle critical dialogue and hinder students' willingness to engage. This disconnect implies how digital tools, while framed as innovative, often fail to foster the participatory agency needed in meaningful learning experiences.

The application of deficit thinking (Ladson-Billings, 2010) in digital contexts illuminates how digitalization can reinforce existing inequalities, as teachers and students are reduced to data points rather than recognized as subjects with unique experiences and needs. Fraser (2009) asserts that people can act against and within existing power structures to promote social change for equality and recognition, highlighting the need for collective action to challenge dominant power structures. "There is no interiority or preexistence of the autonomous self" (Duarte, 2021, p. 3); peoples' subjectivity is created from social interaction. Lévinas (1989) stresses this point, saying that "justice is impossible without the one that renders it finding himself in proximity" (p. 159). Teachers' subjectivities are, therefore, intertwined with relations, highlighting the importance of ethical engagement in education and digitalization. Education is, therefore, rooted in relationality and the educational relationship, which influences knowledge creation and identity, subjectivity, and agency. Teachers ruminated on desires for critical engagement with digitalization, advocating for uses that prioritize relationality and inclusivity over efficiency. The tension in this is that teachers also recognize the efficient benefits of digitalization. This indicates a recognition that democratic engagement cannot happen in a vacuum; instead, it requires active, relational interactions between subjects.

Reflecting on the findings makes it clear to me that digitalization for education should be approached critically, recognizing the importance of relational ethics and democratic engagement—a critical role of K-12 teachers in fostering communication development, critical thinking, and socio-emotional learning. Teaching extends beyond simply delivering content; it involves modeling effective communication and creating opportunities for students to engage in democratic practices. Inefficient moments in the classroom, often seen as disruptions, are, at

times, valuable spaces for student growth, providing time for development. Teachers in this study placed value on democratic educational aims and civic engagement.

The digitalization of education poses some challenges to these values. Teachers shared their perception of a decline in students' communication skills because of technology use, which impacts how teachers perceive their teaching identities and subjectivity, as their roles change when the needs of students change. When simple communication becomes a barrier for students (a symptom of their reliance on devices, as per the teachers in this study), teachers must grapple with encouraging democratic and civil communication. Viewed as part of their work, teacher participants strive to create environments that embrace diverse views and facilitate dialogue. However, bridging the gap between democratic dialogue/debate and simple dialogue can be a new challenge.

Ultimately, this research points out the need to reevaluate digitalization in education, emphasizing the need for criticality. The implications of the findings extend beyond K-12 education. Higher education and lifelong learning contexts face similar challenges in fostering ethical relationships and democratic practices amidst increasing digitalization. Future research should explore this phenomenon in other educational levels and environments, examining digitalization's impact on subjects and its ability to hinder or strengthen relational and ethical educational practices. Identity is fluid and constructed through social and cultural structures (Britzman, 1992), indicating that digitalization complicates teacher identity and subjectivity. The teacher participants reinforced this idea through their narratives.

This research has impacted my views on my subjectivity and identity as a researcher and former teacher. Through experiences in schools and this research, I have witnessed teachers' struggles in reconciling digitalization with pedagogical values. This has deepened my interest in and commitment to education rooted in democratic and relational aims. As digitalization is part of social, educational, and cultural contexts, I think continued research is imperative. I have also witnessed stark views of digitalization and negotiations with its use. While there are multiple political and ideological positions about digitalization, the fact is that its integration into education is nuanced and ever-changing.

By utilizing a relational ethic lens, educational stakeholders can work towards educational spaces and practices that embody democratic relational values, whether in person or digitally mediated. Navigating the paradoxes and contradictions of digitalization is imperative to

analyzing the purposes and challenges that can diminish and uniquely develop the relational and ethical aspects of teaching and learning.

Appendix

Appendix A 1 Page Precis

During my educational career I have witnessed an acceleration into digitized teaching and learning. This has me wondering what impact it has on teachers' perception of their professional identity, agency and subjectivity. The current accelerated digitized education is not novel, but has a long history including political and socio-economic narratives not lost on teachers, their actions and rituals, within physical (and increasingly virtual) classrooms. The narrative is often framed as bringing choice, decision making power, and freedom for students and teachers alike. But the accelerated digitization has also been in many ways money hungry and predatory. My purpose here is to engage with professional teachers to gain insight into how teachers' feel and view themselves, their ability to make decisions and to act while practicing their craft within the digital landscape. I hope to learn what impact, the changes, comings of being, formation of identity and subjectivity and relationality this increased digitization of education may have on teachers and in turn on education writ large. To do so, I will situate the teacher data in literature on relational ethics, subjectivity, agency, and digitalization of education.

I wonder if our current versions of digitalized education are democratic or liberatory, how they can provide a sense of professional autonomy and freedom for teachers to best support student growth and development. I want to learn how teachers perceive their successes and failures within the realities of the digital education world in which they exist and teach and to what extent teachers perceive their agency in the activities they have done/are doing. Lastly, but not least, I want to learn how teachers experience their relations with students, colleagues, contexts, and curriculum within the digital landscape.

My interest in teacher subjectivity (a view that encourages us to look at our internal selves as inevitably intertwined with external objects and subjects, like other individuals and society or ideas and principles) in digitalized education steams from contemplating the digital landscape as democratic and liberatory or not. If not, how can it provide the sense of participatory agency (ability to make decisions and act) for teachers to best support their views of good education? If it is, how do teachers view it in this way and is their perception of their agency and subjectivity impacted by the change in place (face-to-face to digital)?

I plan to do this research using Narrative Photovoice and collect data through individual, dyad, and triad interviews, as well as small focus groups. The focus groups will include around 4 people and I will facilitate the conversations with some guiding questions. Teachers will be asked to bring a visual (photo, screenshot, etc) with them to the session/interview and share a short narrative about it with the rest of us.

If you would like to read more about some of these ideas, listed below are some sources. Thanks!

Relational Ethics:

- Biesta, G. (2004). "Mind the Gap!" Communication and the educational relation. *Counterpoints, 259,* 11-22.
- Hinsdale, M.J. (2016). *Relational Pedagogy*. Oxford Research Encyclopedia of Education.

- Lévinas, E. (1981). *Otherwise than being or beyond essence*. The Hague: Martinus Nijhoff.

Agency & Subjectivity:

- Biesta, G., Priestley, M., & Robinson, S. (2015). The role of beliefs in teacher agency. *Teachers and Teaching: Theory and practice, 21*(6), 624-640.
- Blackmore, J. (2020). Identity, subjectivity and agency: Feminist re-conceptualising educational leadership within/against/beyond the neo-liberal self. In R. Niesche & A. Heffeman (Eds.) *Theorising Identity and Subjectivity in Educational Leadership Research.* Taylor & Francis Group.
- Duarte, B. (2020). Situating subjectivities in the macrosocial policy context: critical/queer multifocal policy research. *Journal of Education Policy.*
- Eteläpelto, A., Vähäsantanen, K., Hokka, P, & Paloniemi, S. (2014). Identity and Agency in Professional Learning. In S. Billett, C. Harteis, H. Gruber (Eds). *International Handbook of Research in Professional and Practice-based Learning*, (645 – 672). Springer.
- Mansfield, N. (2000). *Subjectivity: Theories of the self from Freud to Haraway.* New York University Press.

Digitalization of Education:

- Friesen, N. (2011). *The place of the classroom and the space of the screen: Relational pedagogy and Internet Technology.* Peter Lang.
- Means, A. (2018). *Learning to Save the Future: Rethinking Education and Work in an Era of Digital Capitalism.* Routledge.

Narrative Photovoice:

- Simmond, S., Roux, C., ter Avast, I. (2015). Blurring the boundaries between photovoice and narrative inquiry: A narrative photovoice methodology for gender-based research. *International Journal of Qualitative Methods.*

Appendix B Informed Consent Form

You are invited to participate in a research project being conducted by Andrea Bennett-Kinne from Miami University. The purpose of this research is to explore teachers' sense of relational subjectivity and agency within digitalized education. Participation in this research is restricted to persons 18 years of age or older.

I will collect data from individual interviews, dyads, triads, and small focus groups (4 participants). I will collect data from participants in one on one interviews or small groups called focus groups. The choice of interview format will be guided by the participants' preferences and the availability of other focus group members for the time frame of the interview. Participants will be asked to bring a visual (photo, screenshot etc) and some thoughts about the visual to the meeting. For your visual, please take a picture of other form of imagery that you capture or create that represents something important to you from your experiences teaching within digitalized education. For example, a photo taken of your work space or a screenshot/grab of a virtual classroom or class session. If the visual contains images of students, those should be blacked/blurred out. I can help you with that process if you need. If your visuals include images of yourself, you have the option to black out any identifying features or I can do that for you once I have the visual. However, after bringing a visual to the meeting, you can always change your mind and we can work together to make your visual de-identified. The sessions will last between 30-120 minutes depending upon the size of the group being interviewed. The larger the group, the longer the interview will most likely take.

Your participation is voluntary, you may skip questions you do not want to answer, and you may stop at any time. Foreseeable risks and/or discomforts associated with this study are that participants may feel nervous or anxious speaking in a small group about their personal and professional thoughts and feelings. The benefit of this study is an awareness of the impact on teacher subjectivity and agency as a result of digitalized education.

With your permission, I will audio record our discussions to ensure accuracy. Later, I will transcribe the recordings and make notes. I will delete the recording. If you inadvertently include identifying information, such information will be removed from any stored data. I also ask to have a copy or the original of your shared visual. If there are identifying features in the visuals, I will edit them out and delete the original.

By signing this consent form, you consent to the use of your shared visual and audio recording for this research. You may withdraw from the study and withdraw your data at any time. To do so you can email or call me.

Since it is possible to collect data from an open discussion involving 2-4 participants, we ask that you not discuss the comments of others as you would expect others to show you the same courtesy. That said, you should be aware that for anything you share with the group, the researchers cannot guarantee confidentiality. Results of the research will be presented publicly only as aggregate summaries.

If you have any questions about this research and consent or you feel you need more information to determine whether you would like to volunteer, you can contact me at bennetaj@miamioh.edu

or my faculty advisor, Kathleen Knight Abowitz, at knightk2@miamioh.edu. If you have questions or concerns about the rights of research subjects, you may contact our reviewing body: Research Ethics and Integrity Office at Miami University at (513) 529-3600 or humansubjects@miamioh.edu.

Please keep a copy of this information for future reference.

Participant Name:____

Participant Signature:____Date:_________

Contact Information (email) if you would like a summary of the results:____________________

Appendix C Focus Group Guide

Opening Questions: What experiences have you had with digitized teaching and education in general? Which classes have you used digitized education? What platforms? Formats? Tools?

Introductory Questions: Why did you become a teacher? What do you value about teaching and education?

Transition Questions: Is teaching digitally and/or with digital tools different than teaching face to face or without digital tools? How?

Key Questions: How have digital teaching experiences impacted your abilities to make decisions for yourself? Your students? Your curriculum? Your school?

How have digital teaching experiences impacted your beliefs/values/perspective in regard to education? Like with your students and their families? Your co-workers? The administration? Your community? With technology itself? With the educational space itself? And the relationships that are between all of these parts?

Ending Questions: With keeping in mind what we've already discussed, what are the challenges for you with digital teaching and learning? What do you feel you've been successful with? Why do these challenges exist? Why have you been successful? What can be done to address challenges? What, if anything could we do today or in the near future as a group? How can successes be celebrated and spread?

Appendix D Initial Participant Email Invitation

Dear [insert name],

I am writing to you to invite you to participate in a study I'm conducting entitled: Relational Teacher Subjectivities and Agency within Digital Education. The aim of my study is to learn from teachers own narratives, how their relations, sense of self, and agency are impacted when teaching in a digital environment. If you'd like to participate, it would involve speaking with me one-on-one, or with a small group of 2-4 other participants. The meeting should last between 30 minutes to 2 hours depending on the number of teachers in the group. I ask that you bring a picture/screenshot/grab etc. (hard copy/digital) to our meeting that can help guide us in talking about your experiences teaching digitally.

In case you are wondering why this email is coming to you, I'm looking specifically for teachers from southwest Ohio teaching in grades 9-12. I found your name and email on your school's staff directory list. If you think this study would interest another educator you know who meets those criteria, please feel free to forward this email to them as well!

Some background on me: I'm Andy Bennett-Kinne. I have a Bachelors of Philosophy, Master of Art in Teaching: Integrated Social Studies and am currently a PhD candidate at Miami University in Educational Leadership. I've lived in Ohio most of my life. I've taught in K-12, private institutions, and university settings both online and in person. I'm a mom of a 9 and 7 year old. I've always wanted to understand and learn about people and their experiences, so I hope I'll have the opportunity to learn from you!

Please feel free to email me with any questions or concerns and interest in participating! I'll email you more information at that time. Thanks so much and I hope we'll get to work together soon!

Kind regards,

Andrea Bennett-Kinne (Andy)
bennetaj@miamioh.edu

PhD Candidate
Educational Leadership
Miami University

Appendix E: Sheet for Interviews

First, Im gonna turn on the recorder – do you have signed consent form?

my research uses these 3 big topics:

Relational ethics is about centering morals on the relationships between person and person, person and space, place, environment, technology, etc. rather than centering on the individual person.

Subjectivity is a view that encourages us to look at our internal selves as inevitably intertwined with external objects and subjects, like other individuals and society or ideas and principles.

Agency here is one's ability to take action and make decisions.

So in the interviews I'm looking to understand how using digital technologies for teaching is (if it is) impacting teachers agency & subjectivity – as well as the way they connect to others and spaces – so then how that impact their views of what teaching is. To do this I have these questions here as a guide and your visual – if you have one. But you can skip any questions or tell me you don't want to do this at any point.

Opening Questions: What experiences have you had with digitized teaching and education in general? Which classes have you used digitized education? What platforms? Formats? Tools?

Introductory Questions: Why did you become a teacher? What do you value about teaching and education?

Transition Questions: Is teaching digitally and/or with digital tools different than teaching face to face or without digital tools? How?

Key Questions: How have digital teaching experiences impacted your abilities to make decisions for yourself? Your students? Your curriculum? Your school?

How have digital teaching experiences impacted your beliefs/values/perspective in regard to education?

Like with your students and their families? Your co-workers? The administration? Your community? With technology itself? With the educational space itself? And the relationships that are between all of these parts?

- Ending Questions: With keeping in mind what we've already discussed, what are the challenges for you with digital teaching and learning?
- What do you feel you've been successful with?
- Why do these challenges exist? Why have you been successful?
- What can be done to address challenges?

- What, if anything could we do today or in the near future as a group? How can successes be celebrated and spread?

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