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BECOMING A RESPONSIBLE DIGITAL CITIZEN: ESSENTIAL SKILLS AND  
KNOWLEDGE FROM THE PERSPECTIVES AND LIVED EXPERIENCES  
OF K-5 ADMINISTRATORS, STUDENTS, AND TEACHERS

KAREN J. RICCIO

330 pages

Digital citizenship has become an increasingly important topic and is not consistently defined amongst administrators, students, and teachers. There is also a lack of knowledge about the essential skills and knowledge to become a responsible digital citizen, making it difficult to identify how to help students become responsible digital citizens. The purpose of this study was to explore the perspectives and lived experiences of K–5 administrators, students, and teachers considering the essential skills and knowledge to become a responsible digital citizen.

This study filled a gap in the literature, as there was a lack of perceptions and experiences about the essential skills and knowledge to become a responsible digital citizen from the perspectives of administrators, students, and teachers (Guyen, 2018). This study used a transcendental phenomenological research process (Moustakas, 1994) and collected data from research participants' semistructured interviews, digital journals, and creative synthesis products (e.g., digital story, digital logo, social media post, digital poster).

The data were analyzed following the phenomenological processes as posited by Moustakas (1994). The emerging themes for administrators included functionality of technology, having an awareness of cyberbullying, showing accountability to care for devices, understanding the concept of a digital footprint, and healthy connections and relationships. The emerging

themes for students included finding reliable sources, showing kindness, and online safety. The emerging themes for teachers included meaningful lessons and discussions, and understanding the concept of a digital footprint. The findings of this study showed responsibility at the heart of digital citizenship and gave a unique perspective on the perceptions of K–5 administrators, students, and teachers about the essential skills and knowledge to become a responsible digital citizen and shed light on common misconceptions and inconsistent beliefs about digital citizenship which will aid school districts in their implementation of digital citizenship.

The results of this study will also help further discussions about the roles of school librarians and provide evidence for increased collaboration between school librarians and K–5 teachers. In addition, the essential digital citizenship skills identified within the results of this study can be shared with the American Library Association (ALA) particularly the essential skills for digital citizenship that overlap with ALA’s definition of digital literacy: “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills” (ALA Digital Literacy Task Force, 2011, para. 1).

**KEYWORDS:** digital citizenship, media literacy, nine elements of digital citizenship, cyberbullying, S3 framework, 21st century skills, responsible technology use, acceptable use policy

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KAREN J. RICCIO

A Dissertation Submitted in Partial  
Fulfillment of the Requirements  
for the Degree of

DOCTOR OF EDUCATION

School of Teaching and Learning

ILLINOIS STATE UNIVERSITY

2022

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KAREN J. RICCIO

COMMITTEE MEMBERS:

Jay C. Percell, Chair

Ryan Brown

Andrea Jamison

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K. J. R.

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## CHAPTER I: INTRODUCTION

### **Background of the Problem**

Research exploring the skills and knowledge needed to become a responsible digital citizen from the perspective of administrators, students, and teachers is lacking (Guven, 2018). Guven (2018) explored the needed skills and knowledge to become a responsible digital citizen from the perspective of parents raising secondary students. However, leaving out the perceptions of additional stakeholders leads to gaps in the research surrounding the skills and knowledge needed to become a responsible digital citizen. The perspective of multiple stakeholders prevents assumptions about the skills and knowledge needed to become a responsible digital citizen. Administrators often assume teachers know how to teach 21st century skills effectively because teachers are using technology in the classroom; however, Beck (2020) found that administrators could not account for the cognitive impact the technology had on learning. Additionally, 49% of middle school students in a recent study responded they were not sure if they received instruction in digital citizenship at school (Martin et al., 2020). The assumptions made by teachers and administrators combined with students' lack of understanding constitute the need to understand the perceptions of all three stakeholders to understand the problem of what skills and knowledge are needed to become a responsible digital citizen.

Researchers have studied digital citizenship through the lens of administrators and district leaders (Beers, 2017; Domeny, 2017; Edwards, 2019; Monterosa, 2017) to gain an understanding of the administrative-level changes needed to allow for digital citizenship instruction, as well as professional development and support for teachers. Administrative support is necessary for successful digital citizenship programs. It is interesting that Monterosa (2017) asserted that district leaders play an important role in shaping federally mandated policies influencing how

digital citizenship curriculum is developed and implemented in schools, often requiring efforts to reform current policy and practices. Adopting policy within a school district affirms the district's commitment to digital citizenship and puts a plan in place for formal curriculum adoption and necessary professional development for teachers. Administrator awareness and support of digital citizenship can help provide teachers with purposeful and supportive professional development opportunities and bolster teacher support of digital citizenship instruction. However, not all administrators feel confident in their own digital leadership abilities, which may affect an administrator's ability to support digital citizenship initiatives and thus negatively affect professional development opportunities to support teachers.

Similarly, Domeny (2017) asserted there is a gap between current school culture and leadership style and digital culture and digital leadership. Therefore, many administrators feel inadequately prepared for their role as digital leaders. Edwards (2019) has also identified a lack of administrator readiness to lead digital initiatives within a school and has drawn attention to the lack of administrator preparedness in visionary leadership, digital-age learning culture, systemic improvement, and digital citizenship. Leadership is crucial for creating a vision of digital citizenship for a school. The decisions made by an administrator, as well as an administrator's ability to lead digital learning initiatives, affect both students and teachers. Leadership is crucial for providing professional development and support in digital citizenship skills for teachers.

Currently, there is a limited body of knowledge regarding elementary students' perceptions of the skills and knowledge needed to be a responsible digital citizen (Baumann, 2016; Beers, 2017; Klinger, 2016; Snyder, 2016). Baumann (2016) examined digital citizenship from the point of view of elementary teachers and focused exclusively on digital safety and security, finding that the teachers who were attempting to incorporate digital safety and security

into instructional practices needed more up-to-date and ongoing training. Baumann also recommended curriculum changes to support 21st century skills as well as identifying a need for administrators to reconsider policies to address and enforce consequences for inappropriate technology use. Beers (2017) studied technology-related strategies that administrators can use to increase prosocial behavior in K–12 schools and focused exclusively on three digital citizenship skills—digital etiquette, digital access, and digital law—as key concepts related to technology and prosocial behavior. Beers found educational leaders were instrumental in promoting and sustaining a digital-age learning culture that is engaging and relevant for students. Educational leaders can promote a digital-age learning culture by modeling digital citizenship for students, helping students and teachers understand digital citizenship culture. Klinger (2016) examined digital citizenship by examining digital communication, collaboration, and social learning from the perspective of teachers of Grades 6–12. Klinger discovered that teachers believed their students possessed the necessary digital literacy skills to use the collaborative digital tools, but students did not have the maturity to use them. Klinger recommended further training in the mature and responsible use of collaborative social learning as part of a digital citizenship curriculum.

Snyder (2016) examined digital citizenship from the perspective of middle school teachers engaging with students in global collaborative projects and social media to see if these projects helped increase students’ digital citizenship skills. Snyder found the global collaborative project gave teachers a unique opportunity to engage students in authentic digital citizenship skills and instruction; if the collaborative project had not used social media, teachers might not have engaged students in digital citizenship skills. Several researchers have explored student perceptions of technology use and digital citizenship from the middle school and secondary

school perspectives (Landon, 2019; Malloy, 2019; Martin et al., 2018, 2020). Martin et al. (2020) stated the need for policy development to implement needed curriculum. Malloy (2019) explored the perceptions of both teachers and high school students and found a discrepancy in how students understood how to live with and learn with technology. Malloy suggested that by integrating digital citizenship, global collaboration, and social media into the curriculum, students could broaden their perspectives of the world, thus increasing their interest in their responsibility for the welfare of the world. Malloy found that students developed greater levels of empathy, and learned to become responsible users of technology through their interactions as global collaborators.

The lack of administrator perspectives at the K–5 level is especially problematic because it prevents stakeholders from understanding the changes needed for digital learning programs and professional development opportunities to be successful (Beers, 2017; Domeny, 2017; Edwards, 2019; Monterosa, 2017). Finally, Guven (2018) studied parents' perspectives and found that communication between parent and child was very important and related to the responsible use of technology. Interestingly, Guven also revealed the parents' deep concern for their children getting lost in the digital world and stressed the important role that parents play in educating their children's hearts and minds. Parents felt that they were in competition with technology. Guven studied only parent perceptions of the needed skills and knowledge to become a responsible digital citizen but did not include the perceptions of administrators, students, and teachers.

The perceptions of administrators, students, and teachers are important to understand the skills and knowledge needed to become a responsible digital citizen. Martin et al. (2020) measured digital citizenship awareness of middle school students and found that students were

unclear how to define digital citizenship. Martin et al. also found that the middle school students were unsure if they were receiving instruction in digital citizenship. Much more work needs to be done to implement digital citizenship in schools and to understand how digital citizenship impacts student learning (Martin et al., 2020). Jacob (2020) posited that teachers did not feel administrators had a clear understanding of 21st century skills, but administrators assumed that teachers intuitively knew how to teach these skills and were doing so. Students can become empowered to view the possibilities of technology and digital participation, as well as understand the associated responsibilities to self and others, by engaging with the skills from the nine elements of digital citizenship and the tenets of the S3 framework (Ribble & Park, 2019). Snyder (2016) recommended further research to understand teachers' perceptions about integrating digital citizenship, global collaborative projects, and social media in educational settings. Szakasits (2018) studied digital citizenship from the perspective of pre-K–12 teachers on the instructional practices needed to incorporate digital skills and found that despite teachers' confidence in digital citizenship skills, they did not have the ability to translate the skills into practice. The perspectives from all three key stakeholders—administrators, students, and teachers—inform the field of digital citizenship (Beers, 2017; Guven, 2018; Martin et al., 2020; Snyder, 2016).

### **Statement of the Problem**

Guven (2018) suggested that researchers add multiple stakeholders' perspectives to a study that explores the skills and knowledge needed to be a responsible digital citizen using a transcendental phenomenological approach that includes the voices of administrators, students, and teachers. Understanding the viewpoints of administrators, students, and teachers may help create a comprehensive view of digital citizenship within K–5 schools and help researchers and

educators uncover the barriers to implementing digital citizenship, such as lack of clarity about the skills and knowledge needed to become a responsible digital citizen.

### **Purpose**

The purpose of this study was to explore the perspectives and lived experiences of K–5 administrators, students, and teachers considering the essential skills and knowledge to become a responsible digital citizen using a transcendental phenomenological approach. I used purposeful intensity sampling (Patton, 1990b) to identify two administrators, three students, and three teachers who shared their lived experiences with digital citizenship skills and knowledge. I used a small sample size to seek greater depth than breadth and gather rich, descriptive data (Patton, 1990b). I recruited participants from a midsize suburban school district in Central Illinois. I collected data from K–5 administrators, students, and teachers using three data points: individual semistructured interviews, digital journals, and a creative synthesis product (e.g., digital story, digital logo, social media post, digital poster).

### **Research Questions**

#### **Central Research Question**

Through the lived experiences of administrators, students, and teachers, what are the essential skills and knowledge to become a safe, savvy, socially responsible digital citizen demonstrating appropriate, responsible, and empowered technology use?

#### **Subsidiary Question 1**

How do K–5 administrators, students, and teachers define digital citizenship?

#### **Subsidiary Question 2**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of administrators' lived experiences?

### **Subsidiary Question 3**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of students' lived experiences?

### **Subsidiary Question 4**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of teachers' lived experiences?

### **Conceptual Frameworks of Digital Citizenship**

For the purposes of this study, I defined digital citizenship as “the continuously developing norms of appropriate, responsible, and empowered technology use” (Ribble & Park, 2019, p. 10). Ribble and Park (2019) created the nine elements of digital citizenship to show the complexity of digital citizenship and address issues of technology use, and misuse. The nine elements of digital citizenship are digital access, digital commerce, digital communication and collaboration, digital etiquette, digital fluency, digital health and wealth, digital law, digital rights and responsibility, and digital security and privacy. Additionally, Ribble and Park (2019, p. 37) created the S3 framework to address responsibility to self and others:

- **safe:** Protect yourself and protect others.
- **savvy:** Educate yourself and educate others.
- **social:** Respect yourself and others.

I used the S3 framework as a conceptual framework to inform my journal prompt and interview questions, as well as the participants' creative synthesis products, to obtain rich descriptions of the lived experiences of K–5 administrators, students, and teachers as to the skills and knowledge needed to become a responsible digital citizen.



## **Nature of the Study**

A transcendental phenomenological methodology was well suited for my study, as the study addressed the participants' perceptions and lived experiences with digital citizenship to show how each stakeholder defined digital citizenship and the essential skills and knowledge to become a responsible digital citizen. Researchers use transcendental phenomenology to seek descriptions of participants' lived experiences (Douglass & Moustakas, 1985). A well-developed phenomenological study provides detailed, accurate descriptions derived from the participant data (Moustakas, 1994). My research questions explored the lived experiences and perceptions of K–5 administrators, students, and teachers to develop a deep understanding of all three perceptions, allowing a comprehensive view of the essential skills and knowledge needed to become a responsible digital citizen. The data gathered from the lived experiences of the participants provided meaningful insight to inform practice in the field of digital citizenship at the K–5 level.

### **Transcendental Phenomenology**

Transcendental phenomenology was a research methodology well suited to this study because phenomenology is concerned with the study of lived experiences. Transcendental phenomenology aligned with the nature of my research questions, which explored the perceptions and lived experiences of K–5 administrators, students, and teachers regarding the essential skills and knowledge to become a responsible digital citizen. A transcendental phenomenological research design focuses on the lived experiences of individuals regarding a phenomenon as described by participants and the meaning the participants assign to their experiences. Additionally, I was able to address a gap in the literature regarding the lack of perspectives of K–5 administrators, students, and teachers as to the essential skills and

knowledge to become a responsible digital citizen from a transcendental phenomenological perspective (Beers, 2017; Domeny, 2017; Edwards, 2019; Guven, 2018; Landon, 2019; Malloy, 2019; Martin et al., 2018, 2020). According to Moustakas (1994), epoché is the first step of transcendental phenomenology. Epoché gives the researcher a new way of looking at things as the researcher sets aside everyday understandings, judgments, and knowing, allowing the researcher to view the phenomenon from a fresh perspective. All research participants in a transcendental design study are co-researchers; the participants' perceptions and experiences, not the researcher's interpretation, create the essence of the phenomenon (Moustakas, 1994). As a library media specialist, I have a deep interest in digital citizenship and learning how administrators, students, and teachers experience it. I used transcendental phenomenology to understand the essential skills and knowledge needed to become a responsible digital citizen outside of my own experiences and thoughts. Transcendental phenomenology was the research design best aligned with the problem, purpose, and research questions considering the lived experiences of administrators, students, and teachers (Guyen, 2018).

### **Significance of the Study**

The results of my study gave a unique perspective on the perceptions of K–5 administrators, students, and teachers about the essential skills and knowledge to become a responsible digital citizen. The perspectives of all three stakeholder groups may shed light on common misconceptions and inconsistent beliefs about digital citizenship. Therefore, school districts may gain an understanding of how administrators, students, and teachers define digital citizenship and the essential skills and knowledge to become a responsible digital citizen. In addition, the essential digital citizenship skills identified within the results of this study can be shared with the American Library Association (ALA) particularly the essential skills for digital

citizenship that overlap with ALA’s definition of digital literacy: “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills” (ALA Digital Literacy Task Force, 2011, para. 1).

The results of this study will also help further discussions about the roles of media mentors and school librarians and provide evidence for increased collaboration between school librarians and K–5 teachers. School librarians play an instrumental role in teaching digital citizenship and digital literacy skills. Scholars increasingly view digital information literacy skills and digital citizenship as converging in their relatedness and importance (Livingstone & Van der Graaf, 2010). The findings from this study may also help inform librarians of essential skills and knowledge to aid in their efforts to support families with much-needed digital media skills and knowledge. The Institute of Museum and Library Services (2013) has recommended that federal and state policy makers, communities, schools, families, and funders more effectively utilize libraries to support children’s learning. Librarians can serve as media mentors, offering significant support for children and caregivers and providing opportunities “to help young children navigate, filter, and learn from the teeming media around them” (Guernsey, 2013, para. 6). The students’ perspectives from this study provide an understanding of the digital citizenship skills students believe are important, and identify areas of need for administrators, teachers, school librarians, and the ALA.

### **Peer-Reviewed Literature**

A review of the literature indicated that research on elementary students’ perceptions is limited or sparse, especially from the transcendental phenomenological perspective (Guyen, 2018). The literature also indicated that studies from all three perspectives—administrators, K–5 students, and teachers—are also lacking. My study contributes to a limited body of research on

understanding digital citizenship from a K–5 perspective. This study is significant because it addresses a critical gap in the literature on digital citizenship by exploring the essential skills and knowledge to become a responsible digital citizen from the perspectives of administrators, students, and teachers (Guvén, 2018).

### **K–12 Education and Practice**

This study contributes to the field of 21st century learning and digital citizenship skills for K–5 students. The results of this study may suggest changes or additions to a school’s current digital citizenship curriculum, including policy adoption, International Society of Technology in Education (ISTE) standards adoption, professional development, and the implementation of a supportive learning environment for teachers. My study may inform the practice of classroom teachers who can use the insights of administrators, students, and other teachers to address current gaps in digital citizenship understanding to teach and model these skills in a meaningful way to students. Understanding the perspectives of administrators, students, and teachers can help school leaders make informed decisions, advocate for policy changes, adopt curricula, and support professional learning communities to support 21st century learning skills. My study may also inform the practice of school library media specialists who are advocates for digital citizenship and can be instrumental in providing support and professional development for teachers and administrators. The findings of this study may also benefit the ALA, which is instrumental in bringing legislation forward on digital citizenship and digital fluency. Administrators will benefit from gaining the perspectives of students and teachers to plan for meaningful professional development to address gaps in skills and knowledge of digital citizenship, as well as plan for ongoing support for teachers. Students will benefit from digital citizenship skills and practice safe, legal, and responsible use of technology. Research has shown

a lack of clear definition of digital citizenship, as well as gaps in 21st century learning skills incorporated into daily instruction (Holland, 2017; Martin et al., 2020). The teacher perspective presented within this study will help administrators and teachers identify essential digital citizenship skills and knowledge and will have a direct influence on teacher practice within the classroom.

### **Delimitations**

I chose participants who had knowledge of digital citizenship and could fully articulate their perceptions of it, including the essential skills and knowledge to become a responsible digital citizen. Another delimitation of this study was the number and type of participants. I collected data from two administrators, three students, and three teachers through semistructured interviews, digital journals, and creative synthesis products (e.g., digital story, digital logo, social media post, digital poster). I collected the data during the summer of 2021. I transcribed and analyzed the data using emerging thematic analysis guided by the concepts and structures associated with transcendental phenomenology processes (Moustakas, 1994).

### **Assumptions**

This study relied heavily on the interview responses received from administrators, students, and teachers, as well as the ability of the research participants to accurately explain their perceptions of the essential skills and knowledge to become a responsible digital citizen. I embraced four philosophical assumptions in this study (Creswell, 2009; Crotty, 1988; Denzin & Lincoln, 1994; Neuman, 2000). The nature of digital citizenship is open to differing and unique experiences and perceptions of administrators, students, and teachers. From an ontological perspective, there are multiple realities and perceptions of digital citizenship. Epistemologically, the subjective nature of the study is important in honoring the voices of all participants. From an

axiological stance, I acknowledge the values that the participants hold as well as my own biases. Methodologically, the study relied on inductive logic for the data, studying the topic within the context of digital citizenship. Further, I assumed the participants in this study would answer the interview questions openly and honestly and that the interviews would provide the most meaningful data. I also assumed the participants were interested in participating in this research and that the administrators, students, and teachers chosen were the most appropriate for this study and had sufficient knowledge and understanding of digital citizenship to inform this study. Lastly, I assumed that the S3 framework (Ribble & Park, 2019) would fully align with the research question to understand the skills and knowledge to become a responsible digital citizen.

### **Definition of Terms**

*Credibility:* Lincoln and Guba (1985) defined credibility as the confidence that can be placed in the truth of the research findings. Credibility establishes whether the research findings represent plausible information drawn from the participants' original data and a correct interpretation of the participants' original views.

*Digital citizenship:* Ribble and Park (2019) defined digital citizenship as “the continuously developing norms of appropriate, responsible, and empowered technology use” (p. 10).

*Nine elements of digital citizenship:* Ribble and Park (2019, pp. 39–41) acknowledged the following elements of digital citizenship: digital access, digital commerce, digital communication and collaboration, digital etiquette, digital fluency, digital health and welfare, digital law, digital rights and responsibility, and digital security and privacy.

*S3 framework:* Ribble and Park (2019, p. 37) identified the following components of the S3 framework, which help address responsibility to self and to others:

- **safe:** Protect yourself and protect others.
- **savvy:** Educate yourself and educate others.
- **social:** Respect yourself and others.

*Transferability:* According to Lincoln and Guba (1985), transferability is the degree to which the results of qualitative research can be transferred to other contexts or settings with other respondents. The researcher facilitates the transferability judgment by a potential user through thick description.

*Trustworthiness:* According to Lincoln and Guba (1985), trustworthiness ensures the findings can be trusted. Lincoln and Guba introduced the criteria of credibility, transferability, dependability, and confirmability to parallel the quantitative assessment criteria of validity and reliability. Trustworthiness helps researchers to persuade themselves and readers that the research findings are worthy of attention.

*21st century skills:* Kaufman (2013, p. 79) defined 21st century skills as “critical thinking and problem-solving skills, communicative skills, information and media literacy skills, contextual learning skills, and an ever-important collaboration skill set.”

## CHAPTER II: LITERATURE REVIEW

### Overview

Chapter II provides a comprehensive thematic review (Moustakas, 1994) of factors that may affect the perceptions of administrators, students, and teachers regarding the skills and knowledge needed to become a responsible digital citizen. A thematic review organizes the core themes in studies and presents their findings accordingly (Cooper, 1989). Other researchers (Beck, 2020; Beers, 2017; Domeny, 2017; Edwards, 2019; Glenn, 2019; Jacob, 2020; Landrum, 2020, Monterosa, 2017; Walters, 2018; Wang, 2020) have focused on administrator, student, and teacher perceptions of digital citizenship. However, no one has studied the lived experiences and perceptions of K–5 administrators, students, and teachers as to the skills and knowledge needed to become a responsible digital citizen. Other scholars (Lafayette-Lause, 2020; Saeed, 2020) have addressed related aspects of digital citizenship such as remote learning, blended learning, bring your own device to school (BYOD) initiatives, the lack of professional development for educators, students’ inappropriate use of technology and social media, and attempts to control student behavior through teacher-centered control and outdated acceptable use policies (AUPs).

My study fills a gap in the literature on the topic of digital citizenship by exploring the lived experiences of K–5 administrators, students, and teachers as to the skills and knowledge needed to become a responsible digital citizen. There is little research exploring digital citizenship at the elementary level (Walters, 2018). Walters (2018) explored elementary educators’ knowledge and beliefs about digital citizenship, as well as educators’ planned and implemented practices, supports, and barriers to digital citizenship instruction. Walters found that most teachers held high levels of skills and knowledge on most of the nine elements of digital citizenship, with the exception of digital law. Walters’s findings are unique because she



specifically described digital citizenship skills as a critical component of 21st century learning, whereas Beers (2017) and Malloy (2019) discussed professional development changes for teachers using a peer support and guidance model as a way for educators to see the positive impact of technology in the classroom. Beers and Malloy also noted that an increase in technology use in schools should relate to an increase in digital citizenship instruction. Beers addressed digital etiquette, digital access, and digital law. Digital citizenship instruction is important for students (Gleason & von Gillern, 2018; Mattson, 2016); without digital citizenship instruction, students may not learn skills to engage respectfully, ethically, and safely online. Walters also found that for students to recognize appropriate and ethical behavior in the digital world, they need to have instructional experiences that reinforce 21st century skills. However, Walters did not address administrators, who play an important role in planning professional development and creating a climate conducive to digital citizenship skill instruction. Additionally, Walters did not address student perceptions of digital citizenship. Therefore, the combined perspectives of administrators, students, and teachers are important to identify essential skills and knowledge to help students become responsible digital citizens demonstrating appropriate, ethical, and responsible use. Teachers may use the nine elements of digital citizenship and the S3 framework (Ribble & Park, 2019) as frameworks to inform digital citizenship instruction.

This chapter establishes the need for digital citizenship by exploring Internet misbehaviors and dangers. Additionally, this chapter presents a historical overview of digital citizenship, conceptual frameworks, varying views of digital citizenship, and theory related to digital citizenship and examines the implications of digital citizenship for students and teachers. Lastly, this chapter explores previous studies addressing the skills and knowledge of digital

citizenship in pre-K–12 education and establish the need for future research to explore the perceptions and lived experiences of K–5 administrators, students, and teachers as to the skills and knowledge to become a responsible digital citizen, while using a transcendental phenomenological approach. I used the topics of digital citizenship to lead to diverse search methods and topics.

### **Literature Search Methods**

Primary search terminology included the following terms: *digital citizenship, Bring Your Own Device, media literacy, nine elements of digital citizenship, Internet danger, technology misbehavior, cyberbullying, S3 framework, REP, one-to-one initiative, one-to-one computing, laptop initiatives, laptop program, teacher 1:1 laptop program, teacher technology efficacy, technology proficiency, technology and learning, technology and education, teacher beliefs about technology, teacher attitudes about technology, connectivism, perceptions of 1:1 laptop environments, Mike Ribble, 21st Century skills, netiquette, social media learning and perceptions of digital citizenship.*

I searched for scholarly peer-reviewed journals, articles, and dissertations on digital citizenship in education through Illinois State University. I emphasized sources dated within 5 years of this research study; however, a few sources date back a bit farther due to the nature of the topic and the need to understand the historical context and origin of digital citizenship. I used the following most relevant databases: ProQuest Dissertations & Theses Global, ERIC (EBSCO), ERIC (OVID), Education Full Text, APA PsycINFO, and Academic Search Complete. I skimmed the abstracts of articles and dissertations to identify the gaps in research and the recommendations for further research to determine relevancy to digital citizenship. I also conducted online searches for relevant and commonly used curriculum resources and standards

related to digital citizenship referenced in several articles and studies. I used the Common Sense Media website on digital citizenship (<https://www.commonsense.org/education/digital-citizenship>), as well as the ISTE website (<https://www.iste.org>).

I began collecting, annotating, reviewing, and coding literature relevant to digital citizenship in October 2020 and continued through February 2021. During this time, I maintained a literature matrix where I organized and annotated my findings from related dissertations noting the title, author, date, sample size, keywords, research methods, purpose, research problem, key findings, recommendations for further research, and key themes revealed in the studies. I used books, articles, and scholarly peer-reviewed journals and annotated them in the same way. After reviewing each reference, I used thematic coding to identify and link common themes or ideas to organize the information into themes or categories (Gibbs, 2007). I also maintained an annotated research journal that I used as I collected and reviewed the literature. The journal highlighted key findings and noted patterns from each article and study. I located 50 references to review and annotate.

### **Internet Misbehaviors and Dangers Necessitate the Need for Digital Citizenship**

Many Internet dangers such as cyberbullying and harassment may arise because children may interact with inappropriate online content or engage with strangers or predators online. Internet dangers and misbehaviors have created the need for students to learn about digital citizenship to protect themselves online. Cyberbullying begins as early as elementary school; 18%–25% of elementary school students have reported cyberbullying victimization (Kowalski et al., 2019). Learning about digital citizenship skills at a younger age could help reduce future cyberbullying and harassment.

## **Cyberbullying**

Cyberbullying and other misbehaviors, such as harassment, occur when users repeatedly send offensive messages; they can include flaming or sending rude, vulgar messages to someone privately or as part of a group (Giant, 2013). Giant (2013) also acknowledged other forms of harassment, including denigration, cyberstalking, impersonation, trickery, and exclusion.

Cyberbullying is the repeated harassment, degradation, or abuse of another through or with technology; it can happen via text message, phone call, pictures and videos, email, online chat rooms, social networking sites, and other websites involving communication (Giant, 2013).

According to Ktoridou et al. (2012), statistics show that 1 in 3 teens aged 12–17 experience online harassment; girls are more likely to be victims of cyber bullying (38% girls vs. 26% boys). Research has shown that 25% of victims of sexual abuse are boys; especially vulnerable are boys who are gay or sexually unsure (Ktouridou et al., 2012). Girls are more likely to be involved in cyberbullying, perhaps because they are more likely to engage in tactics such as isolation, rumors, and gossip for power and control (Ktoridou et al., 2012; P. Smith et al., 2008).

Cyberbullying relates to a lack of respect (Ribble, 2015) and can have devastating effects on children (Baumann, 2016). The prevention of cyberbullying starts at home (Baumann, 2016). Cyberbullying can fill students with fear or anger (Goleman, 1996). Goleman (1996), a pioneer of emotional literacy, explained how high-stress situations such as cyberbullying threaten the emotional part of the brain, releasing stress hormones throughout the body. In addition to stress, another danger of cyberbullying is its wide online audience, which makes it easy for multiple people to witness the bullying and join in, intentionally or unknowingly. Due to the added difficulty of reading emotions online, others may confuse the actions of the bully with joking.

Cyberbullying has the potential to cause depression, anxiety, social isolation, and (in extreme cases) suicide (Giant, 2013).

Giant (2013) acknowledged the extremes to which anonymous users will go to use mobile phones, online platforms and other forms of technology to bully others. The anonymity of technology increases the likelihood of users saying things online that they would not necessarily say face to face (P. Smith et al., 2008). In contrast, Bati and Atici (2010) surveyed 414 Turkish university students about online identity and found that 82.4% felt communicating online was as real as communicating with others offline. Scholars of cyberbullying also note this contrast, showing division about the prevalence of cyberbullying among students. Some scholars have suggested cyberbullying is a huge problem and one of the main challenges young people face in the digital world, largely due to the anonymity of the perpetrators (Mishna et al., 2009). However, O’Harra (2012) found that cyberbullying is no more common than traditional bullying and recognized the positive role that parents, teachers, and school personnel can have in dealing with cyberbullying issues. Others have instead suggested that students should learn and practice respectful behaviors directed toward influencing social norms and focus on digital citizenship efforts, instead of focusing on the harms or dangers of cyberbullying (Jones et al., 2011; Nickerson et al., 2014; Perkins et al., 2011; Polanin et al., 2012; Salmivalli & Voeten, 2004). Cyberbullying victims may have significant mental health risks and internalize their symptoms, setting them on a path for future potential dangers (B. W. Fisher et al., 2016; Kowalski et al., 2014, 2019). W. Richardson (2010) found that children between 2 and 5 years old are the most rapidly growing age group of Internet users (W. Richardson, 2010), although there is less research focusing on cyberbullying among students at the elementary school level (Kowalski et

al., 2019). To keep them safe from the dangers of the Internet, students need digital citizenship instruction starting at a young age.

### **Stranger Danger**

According to Ribble (2020), students should know who they are friends with on social networking sites to remain safe online. Martin et al. (2018) found that 40% of the middle school students surveyed accepted friend requests from strangers, putting themselves at risk for potentially dangerous situations and potentially interacting with online predators. Accepting friend requests from strangers puts students at risk; people may not be who they say they are, which can lead to students engaging with strangers and encountering inappropriate content online.

### **Inappropriate Content**

Giant (2013) found a clear link between young people's widespread use of technology and increasing levels of sexualized behavior, sexual bullying, and exploitation using social media, chat rooms, texting, and mobile cameras, making it easier for children to unknowingly engage in and communicate in potentially inappropriate ways. García et al. (2014) reported that in a national survey conducted with more than 2,700 adolescents, 21.7% of adolescents actively sought websites with explicit sexual content. Interestingly, García et al. also found that adolescents' access to inappropriate content dramatically increased when they were involuntarily engaged: 48.5% of adolescents stated they had involuntarily accessed websites with intense sexual content, suggesting the possibility of peer influence on online behavior. Further, 28.1% of the adolescents stated they received content that promoted alcohol or drug consumption, 24.4% received webpages with violent content, 23.8% received webpages with content that promoted anorexia or bulimia, and 22% received content that promoted racism and religious intolerance.

Finally, 11.9% of adolescents had involuntarily accessed webpages that promoted self-harm or suicide (García et al., 2014). Bailey (2011) noted the difficulty of escaping inappropriate content, due to the lack of a clearly defined space where children can just be themselves online. Ktoridou et al. (2012) acknowledged increasingly dangerous online situations for children, drawing attention to the fact that online predators may attempt to befriend minors online or in person and direct them to engage in inappropriate sexual content and behavior. Additionally, sexual bullying may be a precursor to more dangerous and harmful abuse (Giant, 2013).

### **Harassment**

Furthermore, Hill and Kearn (2011) found that 48% of surveyed middle school and high school students had experienced some form of sexual harassment in the school year; 30% said the harassment occurred through technology, including text, email, and Facebook. Internet dangers and misbehaviors can negatively affect children as young as 2 years old. Parents are often ill prepared to take on the responsibility of keeping their children safe online, and it is up to schools to provide guidance to families. Sadly, many parents and teachers counsel students to ignore their harassers (Hill & Kearn, 2013). Understanding the skills and knowledge needed to become a responsible digital citizen can help administrators, students, and teachers to be better prepared to handle the potential dangers of the Internet.

### **Landmark Cases of Digital Citizenship**

The first tenets of digital citizenship arose in 1958 in oral arguments for *Cooper v. Aaron*. Thurgood Marshall (1958, as cited in Zelden, 2013, p. 182) said, “Education is not the teaching of the three R’s. Education is the teaching of the overall citizenship; to live to learn together with fellow citizens, and above all to learn to obey the law.” Marshall used this quote in response to racial turmoil in the 1958 landmark case *Cooper v. Aaron* involving Little Rock’s Central High

School. The school board had filed a petition to suspend desegregation in the fall of 1958. This case largely focused not just on equality but also on society's responsibility of civil responsibilities (Zelden, 2013). This sentiment mimics the concept of digital citizenship, also a societal issue. Ribble and Park (2019, p. 10) defined digital citizenship as "the continuously developing norms of appropriate, responsible, and empowered technology use."

### **Origin of Digital Citizenship**

The increasing evidence of misuse and abuse of technology within schools led to the adoption of the term digital citizenship in 2004. The increased reporting of student misbehavior with technology both inside and outside of school called for immediate action on behalf of educators to help teach students to become responsible digital citizens (Ribble et al., 2004). As a result, Ribble et al. (2004, p. 7) outlined the first draft of the nine elements of digital citizenship:

- etiquette: electronic standards of conduct or procedure
- communication: electronic exchange of information
- education: the process of teaching and learning about technology and the use of technology
- access: full electronic participation in society
- commerce: electronic buying and selling of goods
- responsibility: electronic responsibility for actions and deeds
- rights: those freedoms extended to everyone in a digital world
- safety: physical well-being in a digital technology world
- security (self-protection): electronic precautions to guarantee safety.

Ribble et al. (2004) supported the important role of educators in modeling appropriate and responsible use, as students look to educators for the norms of technology usage.



Interestingly, many of their examples of recommended strategies for schools, such as teaching faculty about digital rights, and teaching students how to find credible sources of information, are still relevant issues for educators nearly two decades later. Ribble et al. recommended that educators get a grasp on these concepts as new technologies would be continuously emerging, making the task more overwhelming and challenging. Looking back, the findings of Ribble et al. were quite prophetic, warning of future difficulty in coming to a societal agreement on how to deal with digital technology. Laws, AUPs, and rules would not be enough to deal with digital technology (Ribble et al., 2004). Educators still do not have the answer as to the skills and knowledge needed to help K–5 students become responsible digital citizens.

### **Brief Overview of Digital Citizenship**

Ribble et al. (2004) formally defined the term digital citizenship. Digital citizenship was a response to the increasing evidence of misuse and abuse of technology within schools (Ribble et al., 2004). In 2007, ISTE adopted the term digital citizenship and released the ISTE Standards for students as part of its update of the 1998 ISTE National Educational Technology Standards for Students (NETS; Ribble & Park, 2019). Since then, ISTE (n.d.-a, para. 7) has updated its definition of digital citizenship.

This new lens focuses on empowering learners to be in community with others in online spaces and showing them that digital citizenship goes beyond conversations about personal responsibility. It's about being active citizens who see possibilities instead of problems and opportunities instead of risks as they curate a positive and effective digital footprint.

ISTE also updated its digital citizenship standards to create indicators for students to help them be successful in an evolving technological society (Ribble & Park, 2019). ISTE (n.d.-d,

para. 3) Standard 1.2 proposed that “students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.” ISTE’s definition of digital citizenship offers one view of digital citizenship that is similar to the definition of digital citizenship acknowledged by Ribble and Park (2019, p. 10), who defined digital citizenship as “the continuously developing norms of appropriate, responsible, and empowered technology use.” However, other views of digital citizenship exist that address different aspects of online participation as well as skills.

### **Various Views of Digital Citizenship**

#### **Normative View**

The normative view of digital citizenship is a value- and skills-focused approach to responsible and appropriate use of technology, as developed by Ribble et al. (2004) and acknowledged in the ISTE standards (Cortesi et al., 2020). In the normative view of digital citizenship, teachers help students understand the concepts associated with appropriate use, including understanding and applying legal concepts to shared content, managing online security, and assessing the credibility of information found online (Cortesi et al., 2020). In the normative view of digital citizenship, educators who are unsure of what digital citizenship skills to teach students can use the nine elements of digital citizenship and the S3 framework (Ribble & Park, 2019).

#### **Economic and Political Participation**

Economic and political participation can also frame digital citizenship. Those with Internet access, as well as those with media and information literacy skills, have greater social benefits due to their ability to fully engage and participate online (Mossberger, 2009). Further, Mossberger et al. (2012) asserted that there is a link between online participation and political

participation, and that greater access to digital information and services leads to more benefits and increased political participation. Additionally, younger people engage in politics online and use media literacy skills to increase their ability to find, evaluate, and apply information, thus enhancing their political knowledge, participation, and engagement (Mossberger et al., 2012). Viewing digital citizenship through the lens of economic and political participation opportunities requires educators to prepare youth to use technology to critically engage online and understand and respect the viewpoints of others. Social media and global collaborative projects can serve as an outlet for students to increase media literacy and digital citizenship skills through increased opportunities to engage and participate online (Gleason & von Gillern, 2018; Mattson, 2016; Mossberger et al., 2012; Snyder, 2016).

### **Youth and Adult Views of Digital Citizenship**

Another view of digital citizenship has suggested that today's youth have a different view of citizenship than adults, as adults rely on traditional concepts to gather information, such as voting, reading newspapers, and watching television (Bennett, 2007b). The lack of civic and political engagement perceived by adults relates to differing views of citizenship, as young people are most likely to participate in activities that are of interest to them and are close to their values (Bennett, 2007b). Bennett (2007b) acknowledged young people's view of citizenship as a more actualizing model favoring loosely networked activism as the preferred method of engagement in issues of interest to them.

### **Theoretical Models of Digital Citizenship**

Learning theories may inform the theoretical framework of digital citizenship; however, digital citizenship has remained a strong symbolic term (Oyedemi, 2018). Active digital citizenry and corresponding access to digital technology relate to cultural, economic, and social factors

(Oyedemi, 2018). Ribble and Park (2019, p. 41) recognized technology use and digital citizenship as being part of a digital society in which “there is an opportunity for digital citizens to help create a society of users who help others learn how to use technology in a way that everyone can create, learn, and explore the digital space.” Digital citizenship is a participatory practice and an integral part of a globally connected society (Gleason & von Gillern, 2018; Mattson, 2017; Oyedemi, 2018; Ribble & Park, 2019; Snyder, 2016). In digital citizenship practices, learning is a social behavior in which users can create, learn, and explore. The nine elements of digital citizenship and the S3 framework (Ribble & Park, 2019) are conceptual frameworks that educators can use to develop the skills to teach digital citizenship to students.

### **Connectivism**

Connectivism (Siemens, 2004) is a learning theory for the digital age and is applicable to digital citizenship, acknowledging learning as a social behavior. Through connectivism, learners gain knowledge by connecting to others through networks in a learning community. The Internet is no longer just a place for information gathering but a place for social interactions (Siemens, 2004). Social media can provide a platform for active learning of pedagogical content (Siemens, 2004). In recent years, new models of education, social networking sites, the open source and open access movements, and advances in mobile technologies have transformed teaching and learning practices (Siemens & Conole, 2011; Siemens & Tittenberger, 2009). Students may use social media to engage and share knowledge and experiences with others while learning digital citizenship skills (Mattson, 2017; Siemens, 2004; Snyder, 2016).

### **Connectivism and Digital Citizenship**

Connectivism supports media literacy and aligns with digital fluency, an important digital citizenship skill, as identified by Ribble and Park (2019) in the nine elements of digital

citizenship. Ribble and Park (2019, p. 41) asserted that “digital fluency includes the discussion of media literacy and the ability to discern good information from poor, such as ‘fake news’ from ‘real’ news and then applying the learned skills.” Digital fluency skills are important to help users understand what knowledge to find and where and how to find it (Siemens, 2004).

Connectivism theory is composed of many principles (Siemens, 2004). Siemens’ first principle of connectivism is that learning and knowledge contain diverse opinions. The first principle relates to the digital citizenship elements of digital communication and collaboration and digital etiquette (Ribble & Park, 2019). Educators can help students grasp Siemens’s first principle of connectivism by developing students’ digital etiquette through an awareness and respect for the diverse opinions of others online. However, there is a need for explicit instruction in digital etiquette and respect (Utecht & Keller, 2019). Online forums and communities that use procedures and protocols based on etiquette and respect help users to share opinions in a common and civil way (Utecht & Keller, 2019). Another principle of Siemens’s connectivism acknowledges the importance of accurate and current information and relates to Ribble and Park’s (2019) digital citizenship element of digital fluency. Educators can address the currency and accuracy of information by teaching students how to use and evaluate sources properly to determine their relevancy and accuracy. Siemens (2004) acknowledged the importance of access to accurate and current information, and addressed the “shrinking half-life of knowledge” (p. 3) as an important part of media literacy, because information can change quickly and become obsolete. Students need to develop media skills to determine the relevancy of information sources (Utecht & Keller, 2019). Additionally, students also need the ability to learn, unlearn, and relearn quickly as knowledge quickly becomes obsolete, requiring users to rely on media literacy skills to determine the accuracy and relevancy of information found online. Technology

is ever changing, creating the need for students to have media literacy and digital fluency skills (Utecht & Keller, 2019).

Another of Siemens's (2004) principles of connectivism addresses the need to nurture and maintain connections for continual learning. Educators can teach students to positively nurture and maintain their online connections by teaching students digital communication and collaboration skills (Ribble & Park, 2019). Communication and collaboration are important skills to help students share their voice with others and find their place in the world (Ribble & Park, 2019). Collaboration and connections with others help nurture continual learning (Gleason & von Gillern, 2018; Mattson, 2017; Snyder, 2016; Utecht & Keller, 2019). However, skills are required to continuously nurture and support the collaboration and connection with others (Utecht & Keller, 2019). The key principles of connectivism align with the elements of digital communication and collaboration and digital etiquette, acknowledging the electronic exchange and shared creation of information, digital etiquette, and the standards of conduct in which users think about how their online actions affect others. The principles of connectivism relate to and support digital citizenship skills in pre K–12 schools.

### **Conceptual Frameworks**

The nine elements of digital citizenship and the S3 framework have informed my study (Ribble & Park, 2019). Ribble (2015, p. 17) concluded that “digital citizenship is not a set of ironclad rules; rather, it is away to conceptualize the challenges facing all technology users.” The nine elements of digital citizenship present a flexible framework to focus on relevant technology issues; they may change over time due to emerging technologies, trends, or other issues (Ribble, 2015). I used the S3 framework to frame the research interview questions and the journal prompts and to help the participants structure their digital stories. The research participants

described their lived experiences with the skills and knowledge needed to become a responsible digital citizen.

### **Nine Elements of Digital Citizenship**

The nine elements of digital citizenship are an organizational model to help teachers address the changing and emerging skills related to digital citizenship. Ribble and Park (2019) created the nine elements of digital citizenship for technology users and educators to understand the breadth of digital citizenship topics. Ribble and Park (2019, pp. 39–41) defined the following elements of digital citizenship:

- **digital access:** ensures equitable access for students and is about the equitable distribution of technology and online resources
- **digital commerce:** the electronic buying and selling of goods and services which focuses on the tools and safeguards in place to assist those buying, selling, banking, or using money in any way in the digital space
- **digital communication and collaboration:** the electronic exchange and shared creation of information
- **digital etiquette:** refers to standards of conduct or procedures and has to do with the process of thinking about others when using digital devices
- **digital fluency:** the process of understanding and applying technology and its use
- **digital health and welfare:** refers to physical and psychological well-being in a digital world
- **digital law:** refers to the electronic responsibility for actions and deeds and has to do with the creation of rules and policy that address issues related to the online world

- **digital rights and responsibility:** those requirements and freedoms applicable to everyone in a digital world
- **digital security and privacy:** the electronic precautions to guarantee safety.

The nine elements of digital citizenship can help students focus on what they can do with technology, instead of what they cannot do (Ribble & Park, 2019). Through the skills in the nine elements of digital citizenship, students can also become empowered to understand their associated responsibilities to self and others.

### **S3 Framework**

Each of the nine elements of digital citizenship falls into one or more of the three categories of the S3 framework, helping students to see the responsibility they have to themselves and to others when interacting online. Teachers can use the S3 framework to help students address responsibility to both themselves and to others. Students use the tenets of the S3 framework to show themselves as social, capable beings who have an increased awareness of their world both online and offline. Further, the S3 framework is especially helpful for elementary school teachers and students due to its simplicity for younger learners who may not fully grasp the complexities of the nine elements but can understand the key concepts in broader terms (Ribble & Park, 2019). Ribble and Park (2019, p. 37) identified the following components of the S3 framework that help address responsibility to self and to others:

- **safe:** Protect yourself and protect others.
- **savvy:** Educate yourself and educate others.
- **social:** Respect yourself and others.

Using the S3 framework can help students at a young age find their place in the world of technology, and educators can help students to recognize that they are part of a community.



Older students can use the nine elements of digital citizenship to support the three principles of safe, savvy, and social, thus establishing lasting positive digital citizenship skills for students.

### **Digital Citizenship Related to Pre-K–12 Schools**

#### **Social Media and Digital Citizenship**

Young people’s social media activity can support the development of digital citizenship (Gleason & von Gillern, 2018; Greenhow et al., 2009; Krutka, 2014; Mattson, 2016). Blocking technology and setting strict and unenforceable rules does little to teach students how to engage with technology and media safely, ethically, and responsibly, especially during unmonitored school hours. Safe digital spaces and social media communities can help engage and empower students, allowing the teacher to model the skills and behaviors needed for students to participate and contribute to digital spaces (Mattson, 2016). Using social media offers students formal and informal learning spaces to support the development of digital citizenship for secondary school students (Gleason & von Gillern, 2018). However, using digital spaces and communities within the school may require school districts to change their policies. Students may use social media to develop the skills to find, evaluate, and share information responsibly while engaging in constructive conversations with others from diverse backgrounds (Gleason & von Gillern, 2018; Mattson, 2016). A social-media-enabled digital citizenship approach requires the use of a curriculum that provides opportunities for secondary students to develop an understanding of citizenship and civic education using digital media applications, software, and games (Gleason & von Gillern, 2018). Interestingly, opportunities for a social-media-enabled digital citizenship approach are not up to date with students’ needs and interests, suggesting that educators need more guidance to implement digital citizenship initiatives with social media (Cortesi et al., 2020; Gleason & von Gillern, 2018). Additionally, scholars have acknowledged the lack of

professional development for teachers to implement social media into digital citizenship instruction (Beers, 2017; Malloy, 2019; Wang, 2020). Another barrier to using social media is an overextension of the requirements of the Children’s Internet Protection Act (CIPA; 2000, as cited in Harris & Cusick, 2014) within schools to block and filter inappropriate content, social media sites, exerting control beyond CIPA’s purpose. Blocking social media sites within schools makes it difficult for teachers to use these tools with students. The negative effects of social media and texting have also appeared in the literature on BYOD programs, citing students’ negative behaviors such as peer mistreatment, academic dishonesty, sending inappropriate content such as photos or videos to others, cheating by taking pictures of work to give to others, inappropriate social interaction such as bullying, and recording others without consent (Lafayette-Lause, 2020). A re-examination of current technology use policies, updated professional development for teachers in social media and digital collaboration, and additional curricula may help teachers to incorporate social media safely into digital citizenship skills and instruction.

### **Acceptable Use Policies**

Administrators created AUPs to establish rules for technology use, but AUPs do not necessarily reflect the most current usage trends within a school, nor do they address students’ technology use at home. Responsible use of technology calls for empowering students to take ownership of their technology. Teaching digital citizenship skills is one way to help support the responsible and ethical use of technology within schools. According to Ribble and Park (2019), federal and state governments passed regulations supporting the use of new technologies in schools, and tied substantial funding through E-Rate compliance with these regulations to encourage schools to participate in their mandates. In 1996, the Congress passed the Telecommunications Act of 1996, the first federal legislation to address using the new

technologies within schools and libraries. The Federal Communications Commission (FCC) was able to make new technologies available to the nation's schools and to regulate their use within the schools by providing Internet access to students, especially for those in rural and low socioeconomic status areas. The E-Rate funding program through the FCC provided subsidies for discounted Internet connectivity in these areas (Ribble & Park, 2019). According to Ribble and Park (2019), the federal government afterward tied compliance with the regulations to funding subsidies. Congress passed CIPA in 2000 to encourage schools to adopt certain protective measures. The FCC used CIPA as a way to provide regulatory guidance through the addition of other acts. CIPA relied on filtering software to block out inappropriate material as an Internet safety measure to protect children (Ribble & Park, 2019). Understandably, through CIPA, schools became accustomed to rulemaking, blocking, and filtering content; however, rulemaking alone does not help teach students responsible use. Reliance upon rulemaking suggests the idea that teachers alone are the "Internet police" and that digital citizenship is adult led and controlled (Mattson, 2016). Further, Hollandsworth et al. (2011) claimed that acceptable use policies (AUPs) are not enough, as technologies bring about additional needs to educate students about the proper use of technologies. AUPs originated as a list of rules to protect students from harmful content on the Internet, as well as to meet the federal requirements. AUPs are legal documents, not complete solutions for promoting ethical computer use; many stakeholders including faculty, students, and parents may not be aware of the policy in place (Bell, 2002).

According to Ribble and Park (2019), in 2008, Congress passed the Protecting Children in the 21st Century Act, and shortly thereafter, the FCC ordered schools and libraries to implement the new mandates by July 2012. This act mandated school districts to change their

current policies on technology usage to include information to educate students about appropriate online behavior and required schools to have an Internet safety policy in place to address issues of cyberbullying and interacting with others on social networking websites. However, it remained unclear how instructional practices would change due to the need to educate students on safe technology use. According to Mattson (2017), in addition to protecting students, educators and administrators should help empower them and allow them to have an authentic voice within the digital environments in which they participate and collaborate (Mattson, 2017). Ribble and Park (2019) suggested that an AUP sends a message of fear and constraint and has minimal impact on student behavior, as students are missing the intended rationale behind the rules and see little personal benefit to adhering to the AUP. Rather, educators can adopt a supporting role and prepare students to become empowered learners less dependent on adult intervention through opportunities to engage in more realistic, authentic experiences (Gardner & Davis, 2013; Mattson, 2016). When educators rely solely on an AUP to attempt to correct student behaviors out of context with scenarios and reflection questions, they may be ineffective due to the lack of an authentic context for students to learn digital citizenship skills (Mattson, 2016). Overly restrictive policies also hinder collaborative environments that use social media to promote digital citizenship skills (Bennett, 2007a; Gleason & von Gillern, 2018; Mattson, 2017).

### **Participation in Digital Culture**

A lack of access to digital resources and information can affect students' participation in digital culture, as students may lack the digital fluency skills needed to discern good information from poor information, thus compromising their insights and digital participation (Ribble & Park, 2019). Society has experienced three levels of the digital divide, all of which have limited people's access to technology and participation in digital culture. A lack of access to the Internet

characterized the first level of the digital divide (Riggins & Dewan, 2005); a lack of Internet skills characterized the second level (Zillien & Hargittai, 2009); an understanding of the social and cultural benefits of the Internet and who gains the most advantage from using digital tools characterized the third level (Scheerder et al., 2019; van Deursen & Helsper, 2015). The social and cultural benefits of the Internet are significant for students. To receive such benefits, students must become critical consumers of information and have access to the skills and knowledge needed to participate in digital culture. W. Morrow (1994) acknowledged the inequity of access to information as epistemological; granting access to something is not the same thing as having the skills and knowledge needed to access it. Epistemological access relates to economic, cultural, and institutional and curriculum changes (Slonimsky & Shalem, 2006). Arguably, the COVID-19 pandemic presented all four of those changes, thus resurfacing issues of inequity in Internet access and digital devices (Bucholz et al., 2020). Teachers can accommodate the sociocultural realities of students by developing instructional strategies and learning opportunities that align with the learners' needs to address issues of inequity and access once again (Moll, 2004).

### **Student-Centered Digital Citizenship**

Ribble and Park (2019) suggested educators focus on student-centered digital citizenship through an empowered user policy (EUP), as opposed to an AUP, as a way to engage students in a positive way with technology, as opposed to a list of strict rules for students. Teachers, administrators, and students should collaborate in defining guidelines reflective of a school community focused on principles emphasizing a collaborative learning environment, tools and equity of access, and education in technology use for staff and students (Harris & Cusick, 2014). Ribble and Park added that “an EUP tends to focus on positive statements and turns belief

statements into action items about what behaviors the school, district, or community wishes to see” (p. 57). To meet the relevant and realistic needs of today’s students, educators and administrators should consider employing a layered approach and adopt empowering policies that include the tenets of digital citizenship in authentic contexts, while establishing guidelines (Ribble & Park, 2019). Further professional development for teachers may help address the gaps in educators’ knowledge about digital citizenship instruction.

### **Professional Development**

Professional development is a critical component of digital citizenship implementation but is often overlooked (Beck, 2020; Beers, 2017; Malloy, 2019; Wang, 2020). Often, administrators have assumed that teachers were teaching technology skills to students and that teachers were familiar with 21st Century skills (Beck, 2020). Administrators play a large role in creating a sense of direction and organization for the trainings provided to support teachers (Saeed, 2020). That said, professional development opportunities for teachers are nonexistent, very informal, inconsistent, and heavily focused on “cool things” to do with students using tools like Twitter or Kahoot; they often ignore the ethical, safe, and responsible use factors involved with integrating technology (Lafayette-Lause, 2020; Malloy, 2018; & Wang, 2020). Teachers need more professional development in the skills needed to teach students how to navigate the digital world safely. Teachers also need further instruction in classroom management to learn realistic ways to engage students with social media or use their phones in educational ways (Lafayette-Lause, 2020). Targeted professional development for teachers could give teachers the skills and knowledge to teach students about digital citizenship and the safe, ethical use of technology, especially in the weak areas of digital law and digital literacy. The lack of professional development for educators negatively affects educators’ abilities to implement

digital citizenship completely and effectively (Walters, 2018). Learning how to engage students safely and effectively with technology tools can have positive implications for digital citizenship skills for students.

### **Implications of Digital Citizenship for Pre-K–12 Students**

#### **Classroom Implications and Changes in Instructional Methods**

Changes in instructional methods are necessary for teachers to incorporate digital citizenship skills for students (Malloy, 2019). Administrators should help teachers to examine current instructional methods and provide opportunities for students to engage in powerful digital experiences (Ribble & Park, 2019). However, changes and updates to policies and instructional methods are difficult to implement and often do not reflect advances in education technology (Lafayette-Lause, 2020). Furthermore, there is currently little research addressing how to incorporate digital citizenship in schools, despite the large amount of curriculum available to teachers (Cortesi et al., 2020). Interestingly, some scholars believe the lack of a comprehensive digital citizenship curriculum may be attributed to digital citizenship being a hidden curriculum (Acedo & Hughes, 2014): one that occurs unintentionally but aligns with the reality of everyday life and learning with technology.

Arguably, rethinking instructional methods to incorporate digital citizenship will help engage students and help educators to provide an education that will empower students to become media literate and digitally responsible global citizens (Small, 2016). Changing instructional methods will require more than just adding technology infrastructure and devices; students will need opportunities to engage in critical thinking skills (Dotterer et al., 2016). Furthermore, instructional change requires teachers to embrace digital tools and engage students in authentic contexts to develop media literacy and digital citizenship skills through collaboration

with others (Dotterer et al., 2016). By collaborating with others, students can boost their confidence in digital communication skills, learning respectful communication and respect for different viewpoints as the teachers become more than “the sole providers of digital truth” (Ribble & Park, 2019, p. 123). Instructional methods should help teachers engage students in learning opportunities suited to students’ diverse backgrounds, needs, and interests (Cortesi et al., 2020; Dotterer et al., 2016; Ribble & Park, 2019).

## **Social and Emotional Development**

### **Digital Health and Welfare**

Digital health and welfare of students concerns the physical and psychological well-being of students (Ribble & Park, 2019). Digital citizenship is deeply connected to social and emotional development. Learning key skills such as media balance can help students have greater self-awareness to understand the permanency of their words and actions online, which might otherwise negatively affect their digital footprint. A failure to reflect before posting content online can harm students’ digital health and image because students are not thinking how they are presenting themselves online (Martin et al., 2018). An unhealthy media balance can affect digital health and welfare and lead to Internet addiction, excessive use of the Internet, and social isolation. Internet addiction concerns not only the overall amount of time one spends online but also the negative affect of excessive Internet use on family or schoolwork. Furthermore, Internet addiction suggests the experience of not being able to reduce or stop the activity (Livingstone & Haddon, 2006).

### **Media Balance**

Media balance involves a healthy balance between one’s own needs and the needs of others (Ribble & Park, 2019). An unhealthy media balance can lead to Internet addiction and can



also negatively affect students' health and sleep habits. In one study, over 20% of youth reported being addicted to the Internet, and 45% of elementary and junior high students reported having sleeping trouble (Ko et al., 2005). Chen and Gau (2016) conducted a longitudinal study about the effect of Internet addiction on sleep habits of children; they found that dyssomnia (inability to fall asleep) predicted Internet addiction, and Internet addiction resulted in a disturbance to the circadian sleep rhythm. Circadian sleep rhythms regulate physical, mental, and behavioral changes that follow a 24-hr cycle (National Institute of General Medical Sciences, n.d.). Additionally, periodic leg movements, sleep terrors, sleepwalking, sleep talking, nightmares, bruxism, snoring, and sleep apnea are potential side effects due to the exposure to excessive amounts of light associated with hours of media use (Chen & Gau, 2006). Interrupted sleep caused by a disruption to circadian sleep rhythms is one sign of an unhealthy media balance.

Project Zero, a research center at the Harvard Graduate School of Education, conducted research with over 500 tweens and teens about the most challenging aspects of growing up with so much technology. The survey results revealed that tweens and teens listed their dependence on their devices and the disruption of other activities as one of their top concerns (James et al., 2019). Similarly, Common Sense Media (2016) found that 52% of teens felt like they spent too much time on their devices, distracting them from homework or paying attention to others. The need to constantly tether to a device can also alter, amplify, and transform adolescents' experiences of their peer relationships (Nesi et al., 2018). Teachers can help students learn a healthy media balance by helping students to be critical of their screen time, including social media time, and develop healthy and productive online habits.

## **Social Media**

Social media engagement influences social–emotional development and well-being (Verduyn et al., 2017) in both positive and negative ways. Recent updates to the ISTE standards and digital citizenship curriculum from Common Sense Media support the positive aspects of engaging with technology, helping students to become empowered learners, digital citizens, and global collaborators, with an emphasis on what students can do with technology, instead of focusing on what they cannot do (Mattson, 2018). Social media also has negative aspects because it is a wide-open platform, which can lead to distorted information and images if users do not have strong media literacy skills. Distorted information and images can thus negatively affect self-esteem as kids compare themselves to others online, creating jealousy (Underwood & Ehrenreich, 2017). Parents play an important role in helping children develop resilience as part of their digital citizenship (Gold & Burch, 2014). Interestingly, overly restrictive parents were less likely to allow their children to make missteps online, which negatively affected their ability to build resiliency (Gold & Burch, 2014). In addition, Gold and Burch (2014) asserted that self-esteem and confidence relate to resiliency, which children can use to turn negative emotions and experiences into positive ones. Further, digital citizenship skills may help children successfully navigate potentially negative online experiences. Most teens have a more positive than negative view of social media and feel that social media helps them to feel closer to their friends (Weinstein, 2018). Despite many teens’ positive feelings about social media, social media also has negative aspects. For example, many teens become overly immersed in social media content and in the competitive aspect of seeing how many likes or reposts they received, which could bring on issues of low self-esteem; teens begin to ask, “If I am not supported online, then who

will support me in the real world?” (Ribble & Park, 2019, p. 246). Feeling alone or unsupported could lead to negative outcomes when using social media including cyberbullying.

### **Theoretical Implications of Digital Citizenship for Students**

Digital citizenship has many important implications and benefits for students as they navigate the digital world (Ribble & Park, 2019). Increased online participatory practices and digital citizenship skills help students form their self-identity (Choi et al., 2017). Nevertheless, students still need guidance on how to participate safely online and need to develop skills to do so. The nine elements of digital citizenship can give students the skills they need to become empowered learners and participants in digital culture.

### **Empowering Students**

Empowering students involves engaging them with the nine elements of digital citizenship (Ribble & Park, 2019). Teachers can help empower students by allowing students to have a voice in creating a safe and respectful online space that reflects their values (Mattson, 2017). Furthermore, when students have the chance to engage in digital citizenship skills in meaningful, authentic ways, they have increased ownership of the digital space, have a voice in how they interact within that space, and can work with others to negotiate the terms of use of the digital space. Students benefit from establishing the norms and interactions for their own classroom community (Mattson, 2017). They can also leverage technology and social media to not only learn and share but also to empower those who have no voice. Safe digital spaces and online communities can help empower students to learn important digital literacy skills, collaborate respectfully with others, and evaluate sources of information for accuracy and bias (Mattson, 2016). Digital spaces and communities help create opportunities for students to build their digital literacy and fluency skills in meaningful ways (Gleason & von Gillern, 2018;

Snyder, 2016). Teachers can help students learn digital literacy and digital fluency skills by engaging in digital spaces using the nine elements of digital citizenship and the S3 framework to help teach important digital literacy and digital fluency skills.

### **Digital Literacy and Digital Fluency**

Digital literacy skills are critical to help students make sense of the information they encounter online; however, instruction in digital literacy skills is not always implicit. Students can build their digital literacy skills through inquiry-based learning opportunities in which they receive direct instruction in searching, scanning, finding, and critically evaluating information (Saxby, 2018). Without the skills and opportunity to practice evaluating information for reliability, accuracy, and authenticity, students may struggle to differentiate between types of information online, thus affecting their ability to weigh in on important decisions in society (Ortlieb et al., 2018). Ribble and Park (2019) acknowledged digital fluency skills as one of the nine elements of digital citizenship, asserting that digitally fluent students not only make better decisions online but also are more likely to support others online. Digitally fluent students can also discern high-quality information from poor information and can apply the learned skills to other applications (Ribble & Park, 2019). Teachers can use the nine elements of digital citizenship as a theoretical model to teach students important digital citizenship skills.

### **Theoretical Model Implications of Digital Citizenship for Teachers**

There are theoretical implications for teachers who use the nine elements of digital citizenship. Teachers should model positive online behaviors for students, adapt instructional practices, and engage in professional development. Teachers should help students to recognize that digital citizenship is a critical part of students' daily lives (Ribble & Park, 2019).

Additionally, teachers can use learning standards to address digital citizenship as a part of daily learning. However, not all states are up to date on digital citizenship standards.

### **Digital Citizenship Learning Standards**

Twelve states have adopted legislation around digital literacy and digital citizenship. The National Conference of State Legislators called for legislation to create an advisory committee consisting of educators, administrators, parents and parents who will work with state agencies to develop best practices, resources, and models for instruction in digital citizenship, Internet safety, and media literacy and help with local implementation of best practices (Starrett, 2017). Learning standards, such as the Common Core State Standards as well as the ISTE standards, support digital citizenship skills. The most recent version of the ISTE standards for students portrays students as empowered learners and digital citizens. “Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical” (ISTE, n.d.-d, para. 2). The educator standards on digital citizenship explain that “educators inspire students to positively contribute to and responsibly participate in the digital world” (ISTE, n.d.-c para. 3). Lastly, there are digital citizenship standards for education leaders as well, explaining that “leaders use technology to increase equity, inclusion, and digital citizenship practices” (ISTE, n.d.-b, para. 1). The original standards were released in 1998 as the NETS, then updated in 2007 and 2016 to reflect the needs and demands of the 21st century world (Ribble & Park, 2019). Although the ISTE standards apply to students, teachers, and educational leaders and are helpful in implementing digital citizenship ideas for students of today’s digital world, many states, such as Illinois, have not adopted the newest standards. This may be part of the reason why digital

citizenship skills are not always be included in instructional practice, despite the many curricula available online.

### **Modeling Positive Behaviors**

Teachers should model positive online behaviors for students to learn about appropriate online use. Adults play a large role in modeling positive technology behaviors for students (Baumann, 2016; James et al., 2019; Walters, 2018). Children observe family and educators for guidance on how much information to share, as well as what to safely share, and look for the norms of how others participate in an interconnected world (James et al., 2019). Students look to teachers as guides and use observation to gather ideas about what is acceptable online behavior. Teachers may have to adapt their current instructional practices to model positive technology-related behaviors.

### **Adapting Instructional Practices**

Instructional practices may need to be adapted to include authentic digital citizenship practices to support students' learning of online practices and positive behaviors. Teachers who use passive means of teaching digital citizenship by correcting students' behaviors out of context with scenarios and reflection questions may not be effective because of the lack of an authentic context for students (Mattson, 2017). Students engage with technology and incorporate digital citizenship through participation in safe digital communities as teachers model skills and behaviors (Mattson, 2016; Ribble & Park, 2019). Additionally, scholars have promoted the social participatory practices of teaching and learning, supporting the use of social media in formal and informal learning spaces as an effective way to adapt instructional practices to help develop digital citizenship skills for secondary school students, through opportunities to engage with technology appropriately (Gleason & von Gillern, 2018).

Teachers can adapt their instructional practices to include social media as a platform to develop students' critical media skills such as finding, evaluating, and sharing information responsibly and engaging in constructive conversation with others from diverse backgrounds. Social media can engage students in safe, ethical, and legal behaviors online while capitalizing upon students' interests (Gleason & von Gillern, 2018). Social media and online tools that students enjoy using can also help them learn better (Gleason & von Gillern, 2018; Mattson, 2016). Gleason and von Gillern (2018) contributed to the emerging research field in educational technology by suggesting that young people's social media activity can support the development of digital citizenship. Additionally, students may learn better from real experiences as a part of a digital community where all voices can contribute, collaborate, and think critically together (Mattson, 2016). In this manner, digital citizenship becomes much more than just a lesson, a poster on the wall, or a list of rules to obey. However, opportunities to engage students in social media in formal and informal learning spaces are lacking (Gleason & von Gillern, 2018). The development of a social-media-enabled digital citizenship approach requires a curriculum that helps students understand citizenship and civic education through digital media applications, software, and games (Gleason & von Gillern, 2018).

Adapting instructional practices to include digital citizenship skills could be most effective during the elementary formative years, and help students to establish positive habits. Although educators are making some advances by changing instructional methods to help students in younger grades to develop digital citizenship skills, many educators rely heavily on district support and infrastructure to prevent technology mishaps and misuse (Lafayette-Lause, 2020; Walters, 2018). There is a need for continual training focused on ensuring digital citizenship is an integral part of educators' instructional planning, to help develop students who

are not just rule followers but valued members of a respectful, ethical, and positive global society (Mattson, 2016, 2017; Walters, 2018).

### **Professional Development Needs**

Professional development needs are a critical component of digital citizenship implementation but are often overlooked (Beers, 2017; Malloy, 2019; Wang, 2020).

Administrators often mistakenly assume that because teachers instruct students in technology skills, they are familiar with and instructing students in the 21st century skills associated with digital citizenship (Beck, 2020). Additionally, administrators play a large role in creating a sense of direction, organization, and training to support their teachers (Saeed, 2020). Clarifying assumptions about teachers' comfort with implementing digital citizenship skills could provide a better understanding of teachers' actual professional development needs. Digital law and digital literacy are weak areas of digital citizenship skills for teachers, and thus increased professional development is needed (Walters, 2018). However, professional development opportunities for teachers are often nonexistent, informal, and inconsistent, and focus mainly on trendy things like how to use Google tools, Twitter, or Kahoot, thus ignoring the digital citizenship skills of responsible use involved with integrating technology. Digital citizenship instruction is often confused with simply learning technology; the lack of knowledge or training in digital citizenship skills negatively affects educators' abilities to implement digital citizenship completely and effectively (Walters, 2018). Interestingly, Walters's (2018) study about elementary educators' knowledge, beliefs, and planned and implemented practices for digital citizenship revealed that most pre-K–5 educators believed that planning and implementing digital citizenship into instruction was important. Therefore, professional development



opportunities must support teachers' needs and reflect the skills and knowledge—not just the tools—needed to become a responsible digital citizen.

### **Prior Studies Addressing Skills and Knowledge of Digital Citizenship**

Scholars have studied the skills and knowledge needed to become a digital citizen from the perspective of administrators, teachers, and school leaders. Szakasits (2018) used a mixed-methods research design to survey, interview, and observe 187 pre-K–12 teachers to determine how the instructional practices of teachers align with digital learning environments and digital citizenship skills. Teachers rated themselves weakest in the digital citizenship skill of knowledge of global awareness and engaging with other cultures via advanced communication and collaboration tools (Szakasits, 2018). Middle school teachers have used global collaborative projects and social media with students that revealed a weakness in students' digital citizenship skills (Snyder, 2016). Students struggled with translating digital citizenship skills into practice, specifically in global communication contexts and developing digital citizenship skills for positive digital footprints and appropriate social media use (Snyder, 2016). Students lacked digital citizenship skills in global collaboration (Szaksits, 2018). However, using global collaborative projects can increase students' digital citizenship skills (Snyder, 2016). Middle school students were only familiar with using social media for social reasons and had little understanding of how to use social media for academic purposes. Additionally, at the start of the global collaborative project, the teachers observed that the middle school students lacked maturity (Snyder, 2016). Both students and teachers showed weakness in digital citizenship skills, lacked knowledge of global awareness and how to engage with other cultures via advanced communication and collaboration tools during global collaborative projects (Snyder, 2016; Szakasits, 2018). Students and teachers may have expressed weakness in digital

citizenship skills even though they were applying the skills in an authentic way, suggesting that a digital global collaborative project may offer students a chance to apply their digital citizenship skills, a concept with which students are unfamiliar.

Teaching digital communication skills is an important part of communication, and social media and global collaborative projects can support students in learning digital communication skills (Ribble & Park, 2019). For example, middle school students had no idea how to use social media appropriately to communicate with others (Snyder, 2016). Other scholars have regarded social media as an important platform for students to learn digital citizenship skills that provides an authentic, meaningful context for students (Gleason & von Gillern, 2018; Mattson, 2016). An analysis of teachers' perceptions facilitated a greater understanding of digital citizenship, global collaboration, and social media, which may help teachers, administrators, school boards, and other stakeholders implement programs to support educators and students with the skills and knowledge to plan digital citizenship programs in their schools (Snyder, 2016). Snyder's (2016) study had a significant limitation: He asserted that teachers held negative attitudes toward learning new technologies and demonstrated poor attitudes about using social media in their classrooms, affecting teacher and administrator buy-in with respect to integrating digital citizenship, global collaboration, and social media in the middle school curriculum. However, the teachers interviewed for his study all reported positive results in increasing students' digital citizenship skills, therefore calling into question why Snyder claimed his study revealed that teachers held negative attitudes toward using social media. Perhaps the negative attitudes were revealed by teachers' perceptions documented in the literature, but Snyder never makes this clear.

Scholars have also explored digital citizenship skills and knowledge, showing a discrepancy between skills and practice (Baumann, 2016; Snyder, 2016; Szakasits, 2018; Walters, 2018). In individual interviews, when asked how teachers model and teach digital citizenship, K–12 teachers believed that they had high levels of digital citizenship competencies, but could not elaborate on how they put the skills into practice (Szakasits, 2018). In surveys, K–12 teachers showed that digital citizenship was a strength, and 97.2% of the teachers used digital content and resources in their instruction (Szakasits, 2018). This difference between teacher efficacy in digital citizenship skills and realistic methods of teaching digital citizenship skills suggests that the teachers may not have a thorough understanding of digital citizenship skills and may lack the skills and knowledge needed to implement digital citizenship skills in the classroom. Szakasits (2018) acknowledged the teachers' lack of a thorough understanding of digital citizenship as a limitation of the study; teachers self-reported their instructional practices and believed they demonstrated digital citizenship competencies, but their instructional practices did not actually reflect this competency.

Beers (2017) used a qualitative dynamic narrative approach to identify technology-related strategies used by superintendents to increase prosocial behavior in K–12 schools. In contrast, Walters (2018) asserted that administrator strategies to help implement digital citizenship elements into teachers' instructional practices has not necessarily resulted in teachers addressing digital citizenship in their classrooms. Beers focused on the digital citizenship skills of digital etiquette, digital access, and digital law as the most important to address prosocial behavior among students. The administrators in Beers's study did not specifically outline the skills and knowledge needed for digital etiquette, digital access, and digital law. For example, when the administrators were asked about the technology-related strategies K–12 educational leaders use

to increase digital etiquette, participants responded, “(1a) teach students lessons on appropriate technology use, (1b) have an acceptable use policy (AUP) in place, (1c) ensure that teachers and staff model the way, and (1d) utilize vendor programs to teach ethical technology use” (Beers, 2017, p. 92). One participant described appropriate use as etiquette, security (self-protection), and safety. Another participant noted that teachers were required to teach three 20-min lessons each year on digital citizenship and expected to model ethical standards inside and outside the classroom. However, one limitation of the study was that it did not include students or teachers; what superintendents believe educators are teaching about digital citizenship and policies that are in place may not directly translate into providing teachers with the skills and knowledge needed to teach digital citizenship skills effectively to students or addressing any limitations.

K–5 safety and cyber security are important digital citizenship skills; however, there is a lack of empirical based studies to determine the skills needed to develop truly computer-literate, and cyber-safe students (Baumann, 2016). Baumann (2016) explored digital citizenship with a case study design using surveys, open-ended, interviews, and artifact analysis with 20 administrators and elementary education teachers to examine their perceptions of addressing computer safety and security in the curriculum. A lack of skills and knowledge of cyber safety digital citizenship skills regarding software and its protections made it difficult for some participants to implement the concepts of digital safety in their own class curriculum, despite the desire to teach these skills (Baumann, 2016). The teachers’ lack of skills and knowledge, taken together with a lack of technology skills and students’ limited computer skills and behaviors, have limited teachers’ adoption of more technology instruction in class, pointing to a lack of skills and knowledge to provide appropriate computer security and safety training to students (Baumann, 2016). Similarly, Walters (2018) acknowledged the lack of teachers’ knowledge to

address digital citizenship in the classroom. Additional hands-on demonstrations and lesson plans for teachers, including real-world examples, should be part of the lesson plans to help teachers bring the skills safely into the classroom for students (Baumann, 2016). Despite the limited training or lack of understanding by some of the participants, all of the participants agreed that computer safety, particularly in social networking, is a very important concept for educators to teach young students. One concern is that although participants felt it was important to teach these skills, many did not teach them due to the students' lack of maturity; however, the participants all stated that technology motivated students (Baumann, 2016). Interestingly, some teachers did not apply any technology-based teaching strategies, despite the availability of computers in their classrooms (Baumann, 2016). However, the study participants strongly believed that computers were an effective teaching and learning tool when the teachers had adequately structured lessons and could manage students' behavior (Baumann, 2016, p. 101). Overall, the teachers did not sufficiently emphasize the skills associated with computer security and safety (Baumann, 2016).

Walters (2018) examined digital citizenship using a quantitative nonexperimental method to survey elementary teachers, curriculum coordinators, and technology coordinators about the knowledge, beliefs, and planned and implemented practices for digital citizenship within elementary schools. Students may develop poor habits due to a lack of training in their developmental years (Walters, 2018). Despite the availability of teaching frameworks, such as the nine elements of digital citizenship (Ribble & Park, 2019), as well as administrator strategies to help implement digital citizenship elements into teachers' instructional practices and curriculum with students, there is a lack of knowledge about what current in-service teachers are doing to address digital citizenship in their classrooms (Walters, 2018). The lack of teachers'

knowledge to address digital citizenship in the classroom suggests further research and professional development for teachers to address the skills and knowledge needed to become a responsible digital citizen focused on the nine elements of digital citizenship (Snyder, 2016). Missing from the literature are the lived experiences and perceptions of K–5 students as to the skills and knowledge needed to become a responsible digital citizen (Walters, 2018). Using phenomenology can help researchers to examine students’ perceptions and experiences associated with students becoming digital citizens (Snyder, 2016).

Scholars of digital citizenship have acknowledged a discrepancy between digital citizenship beliefs and applied skills and knowledge. Teachers struggle to translate digital safety skills to the classroom due to a lack of skills and knowledge, which may be attributable to a lack of training (Baumann, 2016). Middle school students struggle to translate digital citizenship skills into practice, specifically in global communication contexts (Snyder, 2016). Teachers may rate themselves high in many digital citizenship skills but low in their knowledge of global awareness and engaging with other cultures through advanced communication and collaboration tools (Szakasits, 2018). Teachers lack the ability to translate digital citizenship skills into practice (Szakasits, 2018).

Guyen (2018) used transcendental phenomenology as a research design with individual interviews, journaling, and focus group interviews to explore digital citizenship through the lived experiences and perspectives of parents of secondary school students about raising responsible digital citizens. Other scholars (e.g., Baumann, 2016) have also recognized the important role parents play in educating students to become responsible digital citizens. Guven focused exclusively on parents’ perceptions and acknowledged that a limitation of the study was that participants were parents of private school students who may have had above-average access to

resources, including technology. For example, Guven asked parents how they mediated technology and trained their teenagers to become responsible digital citizens in a one-to-one environment. He found that early interventions in online safety and digital citizenship, children's accountability, and trustworthiness allowed parents to mediate technology use in their homes. Providing instruction at an early age and the importance of ongoing communication were two significant themes that emerged in Guven's study. Again, the sample of participants may have affected parents' ability to mediate their children's technology through an established skill set. Guven suggested that future researchers explore the lived experiences and perceptions of K-5 administrators, students, and teachers as to the skills and knowledge needed to become a responsible digital citizen using a transcendental phenomenological approach. Understanding the perspectives of additional stakeholders may lead to increased ongoing communication—an important part of raising a digital citizen, according to parents (Guven, 2018).

## CHAPTER III: METHODOLOGY

### **Purpose of the Study**

Despite the availability of teaching frameworks, such as the nine elements of digital citizenship (Ribble & Park, 2019), as well as administrator strategies to help implement digital citizenship elements in teachers' instructional practices and curriculum, there is a lack of knowledge about what current in-service teachers are doing to address digital citizenship in their classrooms (Walters, 2018). Guven (2018) suggested that future researchers explore the lived experiences and perceptions of K–5 administrators, students, and teachers as to the skills and knowledge needed to become a responsible digital citizen using a transcendental phenomenological approach. Understanding the perspectives of additional stakeholders may lead to increased ongoing communication, an important part of raising a digital citizen, according to parents' perspectives (Guven, 2018). The purpose of my study was to explore the lived experiences and perceptions of K–5 administrators, students, and teachers as to the essential skills and knowledge to become a responsible digital citizen.

### **Research Questions**

A thorough review of the literature helped me identify a lack of research about the essential skills and knowledge of digital citizenship from the perspective of K–5 administrators, students, and teachers (Guven, 2018). In phenomenological research, the research question grows out of an intense interest in the topic (Moustakas, 1994).

### **Central Research Question**

Through the lived experiences of administrators, students, and teachers, what are the essential skills and knowledge to become a safe, savvy, socially responsible digital citizen demonstrating appropriate, responsible, and empowered technology use?



### **Subsidiary Question 1**

How do K–5 administrators, students, and teachers define digital citizenship?

### **Subsidiary Question 2**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of administrators' lived experiences?

### **Subsidiary Question 3**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of students' lived experiences?

### **Subsidiary Question 4**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of teachers' lived experiences?

I used transcendental phenomenology as my research methodology to study the lived experiences from the perspective of K–5 administrators, students, and teachers to explore the essential skills and knowledge to become a responsible digital citizen. I used the work of Moustakas (1994) to inform my research study to discover the essence of meaning of the phenomenon of digital citizenship through textural and structural analysis.

### **Methodology**

A qualitative study best aligned with my research questions. I asked semistructured interview questions so the research participants could openly share their lived experiences with digital citizenship skills and knowledge. Qualitative research is used when the researcher wants to understand the context or setting in which participants in a study address an issue (Creswell, 2013). I used qualitative research methods to explore and understand the meaning individuals

gave to digital citizenship. Qualitative researchers also use an inductive approach, focused on meaning and the importance of the complexity of a topic (Creswell & Creswell, 2018).

### **Research Design**

Transcendental phenomenology was the best framework choice for my study, and I obtained detailed, accurate descriptions derived from the research participants (Moustakas, 1994). Rather than defining the topic for the participants, I was interested in exploring the participants' lived experience and perceptions of the essential skills and knowledge to become a responsible digital citizen. This study filled a gap in the literature because to date no studies have examined the essential skills and knowledge to become a responsible digital citizen from the perspectives and lived experiences of K–5 administrators, students, and teachers using a transcendental phenomenological approach (Guyen, 2018). I used the principles of transcendental phenomenology, outside of my own experience as a library media specialist, to explore the lived experiences of K–5 administrators, students, and teachers as to the essential skills and knowledge to become a responsible digital citizen. Epoché is an important principle of transcendental phenomenology; according to Moustakas (1994), it gives the researcher a new way of looking at the topic as everyday understandings, judgements, and knowing are set aside and the phenomenon is explored from an unbiased and fresh perspective. According to Moustakas (1994), another important principle is the transcendental reduction, a prereflective description of things in which the researcher explains in thorough detail all presuppositions and experiences of the topic. The researcher also uses horizontalization to cluster themes revealed from the participants' data (Moustakas, 1994). Guven (2018) used transcendental phenomenology to study the perspectives and lived experiences of parents raising secondary-level students to become responsible digital citizens in a one-to-one environment.

The goal of phenomenology is to allow for the study of individuals' lived experiences of the world (van Manen, 2007). Moustakas (1994) explained that by examining the lived experiences of others through epoché, the resulting fresh perspective gained through intentionality helps the phenomenologist to develop an unbiased justification of the phenomenon, allowing the phenomenologist to explore rational interconnections. Further, phenomenology focuses on describing a phenomenon experienced by the research participants (Creswell, 2013). Phenomenology is concerned with uncovering the essence of an intentional phenomenon. Phenomenology helps a researcher view a topic from a fresh perspective as phenomenology begins with things themselves (Moustakas, 1994) prejudice is set aside, enabling the researcher to achieve a transcendental state, free of customs, beliefs, and prejudices to study the phenomenon. This perspective allows researchers to view openly what is before them. The goal of phenomenology is to derive awareness, understanding, and knowledge (Moustakas, 1994).

In phenomenology, the researcher seeks the subjective truth and essence of an experience at a specific time from the perspective of the research participants (Creswell, 2007; Moustakas, 1994). Further, van Manen (1990) acknowledged that phenomenology does not seek to develop theory in regard to the phenomenon under study; rather, it generates direct insights into the phenomenon. In a phenomenological study, the findings are not generalizable to other settings, due to the unique quality of how the participants in the study viewed the phenomenon of interest.

Phenomenological researchers engage in preliminary epoché to help establish bias and reflexivity at the start of the study (Moustakas, 1994) and can use a reflexive journal to capture the reactions, assumptions, expectations, and biases about the research process to ensure the rigor and validity of the findings (S. L. Morrow & Smith, 2000). Triangulation of the data, member checking, and peer review also help to ensure reflexivity (Berger, 2015).

Moustakas (1994) believed subjective and objective knowledge are intertwined. The perception of reality is dependent upon the research participants (Moustakas, 1994). According to Peshkin (1988), researchers should actively seek out their own subjectivity rather than stumble across it during data analysis. Subjectivity brings awareness to how the researcher shapes the research process of inquiry and its outcomes (Peshkin, 1988).

### **Theoretical Implications of Phenomenology**

Moustakas (1994) acknowledged Husserl's phenomenology as "a philosophic system rooted in subjective openness" (p. 25), and Schutz (1967) recognized its value as a methodology. Phenomenology emphasizes researching the true meaning or essence of the phenomenon by studying first-person reports of human experiences. Phenomenologists gather the essence of experience from the research participants (Creswell & Creswell, 2018). Husserl's phenomenology emphasized the discovery of meanings and essences in knowledge (Moustakas, 1994). Phenomenology has no explicit theoretical orientation (Creswell & Creswell, 2018), as knowledge comes from the participants, not theory. Furthermore, Morse (1994) contended that phenomenologists are not theorists in the strictest sense; rather, phenomenologists reflect on the theoretical literature to view connections from the data. Through reflection, writing, and rewriting, the phenomenologist recontextualizes the data and sees new insights (Morse, 1994).

### **Digital Citizenship and Its Connection to Phenomenology**

Effective transcendental phenomenological research aims to uncover rich, deep meaning based on participants' experiences (Moustakas, 1994). During the 2020–2021 school year, administrators, students, and teachers have learned and dealt with new technology and skills and have encountered issues related to student safety online. Administrators, students, and teachers have all had significant new experiences with technology skills and knowledge associated with

digital citizenship in the remote learning environment triggered by the COVID-19 pandemic, making this study a timely one. I used the opportunity to give a voice to administrators, students, and teachers who shared their lived experiences with digital citizenship skills and knowledge, thus creating new understanding through the meaning the participants assign to their experiences. As a result, administrators, teachers, and librarians may better understand the skills and knowledge associated with digital citizenship and help students to become responsible digital citizens.

In reviewing the literature on digital citizenship, Guven (2018) used a transcendental phenomenological research design because he wanted to understand the lived experiences of parents raising their children to be responsible digital citizens. Guven identified a research gap in the area of digital citizenship from the transcendental phenomenological perspective of administrators, students, and teachers. Transcendental phenomenology methodology also supported the purpose of my study, which was to explore the skills and knowledge essential to becoming a responsible digital citizen through the lived experiences of K–5 administrators, students, and teachers. Currently, there is a limited body of knowledge about elementary students' perceptions of the needed skills and knowledge to be a responsible digital citizen. However, teaching K–5 students digital citizenship skills could lead to healthy digital habits later in life. Several researchers have looked at student perceptions of technology and use and digital citizenship from the middle school and secondary school perspectives (Landon, 2019; Malloy, 2019; Martin et al., 2018, 2020).

Transcendental phenomenology has strong philosophical roots (Giorgi, 2009; Moustakas, 1994) and aligned well with my research problem, which concerned the lack of research about the perceptions and lived experiences of administrators, students, and teachers as to the essential

skills and knowledge to become a responsible digital citizen. The purpose statement addressed the perceptions of administrators, students, and teachers, and the research questions, which focused the data through semistructured interview questions, digital journals, and the participants' creative synthesis products. Transcendental phenomenology is distinct from other forms of phenomenology in its methods of obtaining and analyzing data, as well as its reliance on intuition, imagination, and universal structures (Moustakas, 1990, 1994). A transcendental phenomenological research design focuses on the lived experiences of individuals in regard to a phenomenon described by participants. All research participants in a transcendental design study are co-researchers, and the researcher serves as a research instrument as well. The essence of the phenomenon comes from the participants' perceptions and lived experiences, not from the researcher's interpretation (Moustakas, 1994). Moustakas (1994, p. 105) identified the following characteristics of phenomenological research:

- It seeks to reveal more fully the essences and meanings of human experience.
- It seems to uncover the qualitative rather than the quantitative factors in behavior and experience.
- It engages the total self of the research participant, and sustains personal and passionate involvement.
- It does not seek to predict or determine casual relationships.
- It is illuminated through careful, comprehensive descriptions, vivid and accurate renderings of the experience, rather than measurements, ratings, or scores.

I used a transcendental phenomenological research design to ask open-ended questions of the research participants, allowing them to speak freely, without preconceived judgment from my questioning. The research problem of my study aligned with a transcendental phenomenological

design because I was able to ask questions to understand the lived experiences and perceptions of K–5 administrators, students, and teachers as to the essential skills and knowledge to become responsible digital citizen. The study also addressed the gap in literature regarding the lack of K–5 perspectives of administrators, students, and teachers and their perceptions of the essential skills and knowledge to become a responsible digital citizen (Beers, 2017; Domeny, 2017; Edwards, 2019; Guven, 2018; Landon, 2019; Malloy, 2019; Martin et al., 2018, 2020).

## **Procedures**

### **Participants**

Participants included K–5 administrators, students, and teachers. The only criterion was that the research participants experienced the phenomenon of digital citizenship, were intensely interested in understanding its nature and meanings, and were willing to participate in the study (Moustakas, 1994). The number of participants in the study depended upon data saturation, revealing no new insights or properties (Charmaz, 2006). Creswell and Creswell (2018) recommended a range between three and 10 participants. I used a sample of purposeful intensity to identify two administrators, three students, and three teachers who were willing to share their lived experiences with digital citizenship.

### **Recruitment**

After I received institutional review board (IRB) approval to conduct my study, I used intensity sampling to recruit administrators, students, and teachers to participate in the research study. I used my Illinois State University email address to send a digital flyer to administrators, students, and teachers in a Central Illinois school district (Appendix A); it included the call for volunteers, the purpose of the study, qualification, time commitments for participants, and the researcher's contact information. I selected participants who experienced the phenomenon of

digital citizenship and were able to describe their experiences with digital citizenship, digital citizenship skills, and knowledge. Further, I explained that participation in the survey was voluntary. The flyer also provided a way for potential participants to contact me for further information or to agree to participate in the study. I sent an introductory letter and a letter of informed consent to selected participants. For the student participants, who were under the age of 18, I also sought informed consent from their parents and guardians as well as assent from the students, as IRB requires. I followed all IRB protocols and sought all necessary approvals for conducting research in the school district in which I conducted my research study.

### **Data Collection**

To triangulate the data, I collected data from in-depth semistructured interviews, digital journals, and creative synthesis products that described the essential skills and knowledge associated with digital citizenship (Creswell, 2013; Moustakas, 1994). Triangulation is important in qualitative research because it helps the researcher to develop a comprehensive understanding of the phenomena under study (Patton, 1990a). Researchers also use triangulation to increase the validity of the study by collecting and analyzing data from multiple sources.

### **Interviews**

The main source of data, as recommended by Moustakas (1994), came from the semistructured interviews. Phenomenological interviews use an informal, interactive process of open-ended comments and questions to create a relaxed and comfortable atmosphere (Moustakas, 1994). Phenomenological interviews also use broad questions that help the researcher obtain rich descriptions of the experience of the phenomenon (Moustakas, 1994). Participants chose pseudonyms to maintain the privacy of their identity. I conducted one thorough 45–60-min recorded interview with each participant over Zoom. I used an interview



protocol guide to help strengthen the quality of data and enhance reliability (Castillo-Montoya, 2016). Castillo-Montoya (2016, p. 812) established the four-phase process to interview protocol refinement (IPR):

- Phase 1: ensuring interview questions align with research questions
- Phase 2: constructing an inquiry-based conversation
- Phase 3: receiving feedback on interview protocols
- Phase 4: piloting the interview protocol

I used the four phases of the interview protocol refinement to establish alignment between the research interview instrument, the research questions, and the purpose of the study. I piloted the interview questions with three participants who were not part of the study to improve the interview protocol. I revised the interview questions based on feedback from the pilot.

### **Journaling**

The research participants used Qualtrics to engage in digital journaling before the interview, during the research process, and at the conclusion of the creative synthesis process. They received thought-provoking questions that aligned with the S3 conceptual framework, which helped them think about the skills and knowledge associated with digital citizenship. They used open-ended text boxes to respond to the questions. After the participants completed the journal prompts, I received their responses immediately through Qualtrics. The participants used digital journaling and reflected on the focus of inquiry to answer the research question, to supplement the data shared within the interview, and to debrief on the experience as a whole. Additionally, I kept a reflexive journal to document my biases and observations through the research process. Researchers use reflexivity to be aware, monitor, and account for their values, beliefs, knowledge and biases (Berger, 2015). Keeping a reflexive journal helped me inform the

epoché and allowed me to observe the phenomena from all perspectives outside of my own experiences, allowing for a pure subjectivity as much as possible (Bernet et al., 1993). Through subjectivity, I gained a nonjudgmental and unbiased view of digital citizenship, allowing me to uncover the underlying noetic–noematic structure of the lived experience of the research subjects or phenomena, as it is (Depraz, 1999; Moran & Cohen, 2012).

### **Creative Synthesis Product**

The participants reflected on the experiences and conversations of the interview and journal prompts to create a creative synthesis product using Adobe Spark. The participants chose a digital story, digital logo, social media post, or digital poster to reflect the skills and knowledge essential to becoming a responsible digital citizen. The participants could narrate the story, and some included meaningful images and their own created illustrations to tell their digital story. The purpose of the creative synthesis was to allow participants to have an active voice to share their purposeful, real lived experiences with digital citizenship skills and knowledge. New ideas can emerge through the creative synthesis process, as it is a very personal, creative experience, allowing for a transforming experience of self-discovery for both the researcher and the co-researchers (Brisola, 2016). The participants used Adobe Spark as a platform for complete creative expression and freedom to share their lived experiences with digital citizenship. Lastly, I helped my participants become comfortable with the technology by offering them training and support in Adobe Spark.

### **Purposeful Sampling**

A purposeful intensity sample contains information-rich cases that manifest the phenomenon of interest intensely. A sample of sufficient intensity of the participant's experiences considering the skills and knowledge of digital citizenship will illuminate the

phenomenon of interest (Patton, 1990b). The COVID-19 pandemic has led to an increase of technology use among administrators, students, and teachers largely due to students engaging in remote learning with a one-to-one device. Since students have a one-to-one-device and the Internet at their fingertips, this has driven an increased awareness of safety issues and concerns for administrators and teachers, creating the need for digital citizenship instruction for students. Due to this immersion in technology, many teachers are now more aware of the potential dangers as well as benefits of technology to students. I used purposeful intensity sampling to identify participants who could thoroughly describe their experiences with digital citizenship skills and knowledge, which were heightened during the COVID-19 pandemic.

### **Data Analysis**

After I completed the semistructured individual interviews with each participant and collected each of the participants' digital journals and creative synthesis products, I transcribed the data using Zoom and then horizontalized the data looking for emerging themes with the data analysis method outlined by Moustakas (1994). I analyzed the data looking for themes that emerged through the participants' lived experiences in regard to the essential skills and knowledge needed to become a responsible digital citizen. I analyzed the data through the core processes that facilitate derivation of knowledge: epoché, transcendental phenomenological reduction, and imaginative variation (Moustakas, 1994).

### **Epoché**

Phenomenological research methods are grounded in the concept of preliminary epoché. Research following the transcendental phenomenological approach focuses efforts on setting aside prejudgments regarding the phenomenon under study, known as epoché (Moustakas, 1994). For Husserl, Kant, and Descartes, knowledge based on intuition and essence precedes

empirical knowledge (Moustakas, 1994). It was very important for me to engage in epoché and leave out my own biases and assumptions of digital citizenship, to be open to explore the essence of my participants' experiences. Husserl believed "that a sharp contrast existed between facts and essences, between the real and nonreal" (Moustakas, 1994, p. 27). I listened to the lived experiences the research participants shared in the interviews, journals, and creative synthesis products without judgment or opinion. The rich data from the research participants' interviews, digital journals, and creative synthesis products gave new meaning to digital citizenship and blended what is really present with what is imagined as present; a unity of the real and the ideal (Moustakas, 1994). This process is ideation; the object that appears in consciousness mingles with what exists in nature to create meaning and extend knowledge (Kocklemans, 1967).

I analyzed the data using the recommendations by Moustakas (1994). Epoché was an ongoing process, in which the researcher puts aside all preconceived ideas about the phenomenon to see the phenomenon in a new and fresh way (Moustakas, 1994). I kept a reflexive journal to enhance the rigor of the study (S. L. Morrow & Smith, 2000) and to address epoché, my biases, assumptions, expectations, thoughts, and observations gathered during the research process. The epoché required to remove the researcher's preconceived notions, judgments, thoughts and biases is difficult to achieve. Moustakas (1994) acknowledged, "This is a difficult task and requires that we allow a phenomenon or experience to be just what it is and come to know it as it presents itself" (p. 86).

### **Horizontalization**

Horizontalization is the first step of the data analysis process, in which the researcher assigns equal value to each statement that represents a segment of meaning (Merriam, 2009; Moustakas, 1994). The researcher gathers meaning from the research participants' statements

and clusters the statements into common categories or themes, removing overlapping or repeated statements (Moustakas, 1994). The researcher considers each horizon or statement and its textural qualities to help understand the experience as a whole (Moustakas, 1994). The final statements, which are those relevant to the theme, cluster into themes to provide a thorough description of the texture (Moustakas, 1994). The researcher deletes any repetitive, irrelevant, or overlapping statements that are not relevant to the participants' experiences (Moustakas, 1994).

The clustered themes create the textural descriptions of the experience, known as what is experienced. Then, the textural descriptions combine to form the structural descriptions, the how, which integrates both textures and structures to construct the essence of meaning in regards to the topic under study (Moustakas, 1994).

### **Phenomenological Reduction**

The phenomenological reduction involves the researcher engaging with epoché again, organizing invariant qualities, which are nonrepetitive, nonoverlapping constituents clustered into themes, and constructing a textural description (Merriam, 2009; Moustakas, 1994). The phenomenological reduction leads back (Latin, *reducere*) to the source of the meaning and existence of the experienced world (Schmitt, 1967). The researcher describes the phenomenon in a new way, giving a complete description of its essential constituents, variations of perceptions, thoughts, feelings, sounds, colors, and shapes (Moustakas, 1994). The phenomenological reduction process involves a prereflective description of things (Moustakas, 1994). The researcher derives a textural description of the meanings and essences of the phenomenon from a consciousness from a completely open self during the reduction process (Moustakas, 1994). Moustakas (1994) added that the “phenomenological reduction is not only a way of seeing, but a way of listening with a conscious and deliberate intention of opening ourselves to phenomena as

phenomena, in their own right, with their own textures and meaning” (p. 92). The transcendental reduction is a critical step once horizontalization has occurred and the researcher has given the textural and structural descriptions.

### **Imaginative Variation**

During the imaginative variation, the researcher looks at the textural descriptions from different perspectives to create a description of the structural. The emerging textural–structural descriptions represent the meaning the participants place on the experience (Creswell, 1998; Moustakas, 1994). This process repeats until data saturation occurs for each research participant, revealing no new data (Charmaz, 2006). The rich descriptions of the participants integrate into a universal description of group experience of the phenomenon under study (Moustakas, 1994). The researcher will find the how and what of the experience by asking, “How did the experience of the phenomenon come to be what it is?” (Moustakas, 1994, p. 98).

### **Textural and Structural**

The textural descriptions of the experience are gathered from the themes discovered during the reduction process. The textural gives the what of the experience in a transcendental phenomenological study (Eddles-Hirsch, 2015). The data from the interviews, digital journals, and the creative synthesis products provide new meaning, blending the real and the imagined; a unity of the real and the ideal (Moustakas, 1994). The individual textural descriptions helped me to become aware of common themes, and invariant qualities. I synthesized the individual textural descriptions to create a synopsis of the experiences, or composite textural description, representative of the whole (Eddles-Hirsch, 2015, p. 257). Moustakas (1994) acknowledged the composite structural description as “a way of understanding *how* the co-researchers as a group experience *what* they experience” (p. 142). The researcher uses noema and noesis to understand

the structure of the phenomenon. Noema is the observable phenomenon, the textural description. Noesis is the act of perceiving, feeling, thinking, remembering, or judging, hidden from the consciousness, and must be drawn out to make noematic meaning (Husserl, 1991). The researcher discovers the structural meaning through analysis, representing all co-researchers. Inherent structures are an important part of the data analysis component of descriptive phenomenology.

Giorgi and Giorgi (2003) explained, “The scientific method is descriptive because its point of departure consists of concrete descriptions of experienced events from the perspective of everyday life by participants” (p. 251). The researcher engages with these concrete descriptions to uncover the structure of the phenomenon. Descriptive phenomenology seeks the wholeness of the lived experiences under study beyond transcription form. I used descriptive phenomenology to study the participants’ lived experiences of digital citizenship skills and knowledge. Descriptive scientific phenomenology aims to describe concrete situations of everyday lived experience (Giorgi, 1985). Descriptive phenomenology uses a different method during phenomenological reduction to explain the phenomena (Giorgi, 1985). Giorgi et al. (2017, p. 178) highlighted the following steps based on Husserl’s philosophical phenomenological methods:

1. First, one turns toward the object whose essence must be determined and one describes it.
2. Second, one must assume the attitude of the transcendental phenomenological reduction.
3. Finally, one must describe the essence or invariant characteristic of the object with the help of the method of free fantasy variation.

## **Invariant Qualities**

I used the invariant qualities and themes to point to the unique qualities of the experience (Moustakas, 1994). The invariant qualities cluster into themes, which then help the researcher to create a description of the experience (Moustakas, 1994). Additionally, the invariant qualities include phenomena that are universally experienced by all the research participants (Eddles-Hirsch, 2015).

## **Intentionality**

Intentionality is another critical part of transcendental phenomenology (Moustakas, 1994). The researcher uses intentionality to discover the meaning and the interconnectedness of the subject under study through intentional consciousness. Husserl (1913/1931) believed that to be conscious is to experience an act of knowing, or noesis. Husserl explained:

Intentionality in that it refers to consciousness, to the internal experience of being conscious of something; thus the act of consciousness and the object of consciousness are intentionally related. Included in an understanding of consciousness are important factors; such as, stirrings of pleasure, early shapings of judgment, or incipient wishes (pp. 243–244).

Intentionality directs consciousness toward something, whether it be real or imaginary, and intentionality is comprised of noema and noesis (Moustakas, 1994). The phenomenon that appears varies in terms of when perceived, from what viewpoint, and the background and orientation from the perceiving individual (Gurwitsch, 1967). The synthesis of the perceived meaning enables the person perceiving the experience to view it in a unique way like no other (Moustakas, 1994). Noema is what is experienced, the object-correlate, and can be analyzed through textural description, in which every aspect of an experience is described through



intuition. Bound with the textural, is the structural description, requiring conscious acts of thinking and judging. Ihde (1977) noted the continual relationship of texture and structure, allowing one to move past the what of an experience, “towards its reflexive reference in the ‘how’ of the experience” (p. 50). As a result, the researcher can use the noema–noesis relationship to allow for the textural and structural descriptions and dimensions of phenomena and the derivation of meanings through intentionality. Through intentionality, one can reflect on something, arrive at its essence, and uncover a new meaning. The final structure is an ideal representation based on the lived understanding of the phenomenon under study (Giorgi, 2009).

### **The Researcher’s Positionality**

Digital citizenship is a topic for which I have much passion. I have been an elementary library media specialist for the past 20 years. This has given me firsthand experience with the varying levels of comfort and pedagogical skills with technology that administrators, students, and teachers have. I have also come to know that using technology is not the same thing as knowing how to use technology in a responsible manner, nor does using technology mean that one has the skills or knowledge to become a responsible digital citizen. The change to virtual learning during the COVID-19 pandemic has prompted an increased interest in the digital habits of students. Many teachers have realized that although students appear to be using technology swiftly and adeptly, they do not necessarily possess the skills to become responsible digital citizens, nor do teachers necessarily have the knowledge to teach students about digital citizenship. The change to a virtual learning environment has led to a lot of new frustration for administrators, students, and teachers. This was part of the impetus behind my interest in pursuing the topic of digital citizenship for my study.

As a library media specialist, I teach digital citizenship as part of my daily routine and curriculum; it has become second nature to me to embed digital citizenship into my lessons and discussions with students. Due to my background knowledge and experience with digital citizenship, I must be diligent in my practice of epoché. Moustakas (1994) defines epoché as a process in which the researcher engages in the phenomenon of investigation, free from preconceptions, beliefs, and knowledge of the phenomenon from prior work and experience. The researcher engages in epoché to become completely open to the lived experiences of the participants. I kept a reflexive journal throughout the research process to reflect on my assumptions, biases, and the experience as a whole so that I was able to maintain epoché. A fresh look at the topic allowed me the opportunity to really learn what digital citizenship is like from the lived experiences and perspectives of my research participants and provided fresh insight into the essential skills and knowledge to become a responsible digital citizen.

### **Limitations**

The limitations of this study are uncontrollable conditions that may limit the scope or affect the outcome of the study. As a researcher using a transcendental phenomenological approach, I focused solely on two key questions: What are the experiences of K–5 administrators, students, and teachers with understanding the essential skills and knowledge needed to become a responsible digital citizen, and in what context or situation was this experienced? Moustakas (1994) identified what and how as two central questions for phenomenologists to explore. Participants spoke freely and clearly about their perceptions of digital citizenship and the essential skills and knowledge to become a responsible digital citizen. This study relied on the assumption that the administrators, students, and teachers accurately

described their perceptions about digital citizenship and the essential skills and knowledge to become a responsible digital citizen.

Patton (2002) argued there are no tests for reliability and validity in qualitative research. Therefore, the researcher must communicate what the data reveals given the purpose of the study. A qualitative researcher using phenomenological methods can address and establish trustworthiness through the phenomenological processes, acknowledging researcher bias and subjectivity through epoché and the transcendental reduction. Transferability is one limitation of this study.

Transferability involves how well the findings of this study are applicable to the reader's own setting (Lincoln & Guba, 1985). As the researcher, I enhanced transferability by describing my research assumptions. I obtained rich, detailed descriptions of the participants' lived experiences describing the essential skills and knowledge to become a responsible digital citizen, which will inform readers and researchers alike. Future researchers can build off the findings in this study and make the findings applicable to their own settings. However, as the researcher, I did not know the assumptions and setting in which transferability was sought but provided rich, thick descriptive data to make transferability possible (Lincoln & Guba, 1985).

### **Establishing Trustworthiness**

#### **Member Checking**

Member checking is an integral part of creating trustworthiness in qualitative research (Creswell & Miller, 2000; Lincoln & Guba, 1986; Stake, 1995; Yin, 2009). I listened very carefully to my participants and engaged in epoché to ensure I did not add my own bias or meaning to what the participants shared. I used member checking to ensure the accurate portrayal of participant voices and allowed all participants the opportunity to confirm or deny the

accuracy and interpretations of data, thus adding credibility to the qualitative study (Creswell & Miller, 2000; Lincoln & Guba, 1986; Stake, 1995). After compiling the data, I asked my participants to review the rough drafts of my write-ups to confirm their accuracy. I offered each participant the opportunity to revise the emerging themes found in data analysis, which improved the accuracy of findings and positively impacted the dependability and trustworthiness of the data.

### **Dependability and Confirmability**

I used member checking (Lincoln & Guba, 1986) to ensure that the data were accurate and representative of the participants' perceptions and lived experiences. I asked the participants to review the emerging themes after my data analysis and comment on my structural and textural synthesis of the research findings (Humphrey, 1989). Reflexivity was very important for me to show full transparency of my own biases (Moustakas, 1994). I used triangulation of the data (Lincoln & Guba, 1985) to ensure the data were consistent throughout the research process. I engaged in epoché (Moustakas, 1994) to check for confirmability through unbiased data obtained from the rich descriptions of each of the research participants (Lincoln & Guba, 1985). I also used epoché to address confirmability, ensuring that my biases were addressed, and I used reflexivity to identify any potential areas of bias (Moustakas, 1994).

### **Credibility**

Credibility establishes whether the research findings represent plausible information drawn from the participants' original data and are a correct interpretation of the participants' original views (Lincoln & Guba, 1985). To improve credibility and dependability, member checking was used (Creswell & Miller, 2000; Lincoln & Guba, 1986; Stake, 1995). After my thematic analysis of the digital journals, the semistructured interviews, and the creative synthesis

products, I sent the participants copies of my synthesis of the textural–structural description of their experience and asked each participant to review the data, descriptions, and emerging themes. I conducted follow-up member checking with each of the participants. The participants could add or modify as needed so that the data accurately represented their perceptions and lived experiences.

Triangulation of data adds credibility to the study by using multiple data sources to obtain a more thorough understanding of the phenomenon under study (Lincoln & Guba, 1985). I used triangulation (Patton, 1990a) to confirm the consistency of results from the three approaches of data including the semistructured interviews, participants’ journals, and creative synthesis products. Studies that rely on only one method are more prone to error than studies that rely on multiple methods for cross-data checks (Patton, 1990a). I also used member checking (Lincoln & Guba, 1986) to provide credibility and trustworthiness of the findings and allowed the research participants to check over the research data, checking for accuracy of their perceptions of the experience defining digital citizenship and essential skills and knowledge. The participants also had the opportunity to check over my data and verify the emerging themes. Member checking was an important ethical consideration that added to the trustworthiness my study.

### **Ethical Considerations**

This study upheld the highest ethical standards and established clear agreements with all research participants. I obtained IRB approval and school district approval before any research began with participants. Due to the COVID-19 pandemic, I obtained digital consent for all permissions and consents, for both minors and adults. I requested a waiver of documentation of informed consent in the IRB protocol. The digital consent acknowledged each research participant’s willingness to participate voluntarily in the study. Student participants under the age

of 18 also gave their assent and also obtained parents' or guardians' consent and permission. I maintained confidentiality and informed consent at all times. Participants chose pseudonyms for themselves to protect their identity. I disclosed the nature, purpose, and requirements of the research study (Moustakas, 1994) so participants were aware of the benefits to the field of education and technology instruction through their participation in this study. Participation in the study was voluntary, and participants were free to withdraw at any time.

### **Summary**

This transcendental phenomenological study focused on the lived experiences and perceptions of K–5 administrators, students, and teachers as to the essential skills and knowledge to become a responsible digital citizen. I used data from the semistructured interviews, digital journals, and creative synthesis products to study the lived experiences of all three groups of research participants. I used the phenomenological data analysis method recommended by Moustakas (1994) to construct the essence of meaning of the topic under study, the essential skills and knowledge to become a responsible digital citizen. Chapters IV and V include the results of the study and discussion of the analysis of findings as well as recommendations for future research.

## CHAPTER IV: PRESENTATION OF DATA

I present the research data in Chapter IV. First, I give a detailed summary of each research participant before exploring the data. Moustakas (1994) recommended the following processes as part of phenomenological analysis: horizontalization, in which the researcher considers all horizons from each research participant, and then the transcendental reduction, in which the researcher analyzes the data to discover the invariant or unique qualities that are significant to understanding the research participants' explanation of the topic under study. I conducted an in-depth analysis of each research participant's verbatim statements; as a result, I discovered the themes that emerged from the data and related back to the central and subsidiary research questions using thematic analysis during the transcendental reduction process (Moustakas, 1994). Then, I provided both the individual textural descriptions and individual structural descriptions, followed by the composite textural and composite structural descriptions. Finally, the last step of the transcendental phenomenological process is to arrive at the final synthesis of essence of meaning, which according to Moustakas (1994) is the synthesis between the textural and structural elements of a given experience or phenomenon.

### **Participants**

Eight participants from the same Central Illinois school district participated in this study, which included two administrators, three students, and three teachers. The participants chose pseudonyms to remove identifiable information and achieve anonymity. The following summaries describe each research participant.

#### ***Lucile***

Lucile is a K–5 administrator at a Central Illinois school district. She has been an administrator for 3 years and is passionate about the online community building, collaboration,

and global communication aspects of digital citizenship. Lucile also engages in social media to discover new interests and foster communication with established friends as well as friends she has never met face to face. She believed that the connections she has made with others online has had a very positive impact on her life and her son's life. Lucile recognized the safety aspects of becoming a responsible digital citizen but believed in a person's ability to promote positive change through online interactions.

### ***Philippe***

Philippe is a K–5 administrator at a Central Illinois school district. He has been an administrator for 5 years. Philippe enjoys using Facebook and Messenger to keep in touch with family, current friends, and those with whom he had lost touch. However, he said that he never feels savvy with technology and acknowledged his frustration with it at times. Philippe acknowledged the benefits of technology, the positive implications for thoughtful technology integration in instruction, and the importance of students learning sequential technology skills that build off previous skills. He also felt that a large part of becoming a responsible digital citizen lies in understanding the functionality of specific software, devices, and programs and what they have to offer beyond their immediate entertainment value. Philippe felt that safety is a concern for him both personally and for his students. Philippe takes extra caution in sharing his private information online. He also believed cyberbullying is a major concern that administrators must address.

### ***Margaret***

Margaret is a fifth grade teacher at a Central Illinois school district and has been teaching for 31 years. She acknowledges how much technology has changed in recent times and stresses the importance of helping students navigate the digital world. She believed a significant part of



becoming a digital citizen is accepting responsibility as a member of online spaces. She is very aware of her social media presence and its impact on both her and her students in thinking about their digital footprint and identity. She enjoys learning from her students and uses real-life scenarios such as troubleshooting techniques and thinking through resolutions to online issues as a springboard for discussion and cooperative learning in her classroom. Margaret likes to learn from her students while they learn from each other.

### ***Margo***

Margo is a fourth grade teacher at a Central Illinois school district. She has been teaching for 10 years. She enjoys using technology to keep in touch with others. Margo consistently teaches her students about being safe, ethical, and responsible online. She believed that positive role modeling for appropriate use, such as copyright, is her responsibility, and she cannot assume that students have learned such skills in the past. She also talks with her students to discover how they are using technology and social media for both school and social purposes. Margo believed it is important to be informed about what kids are interested in online so that she can connect with her students and better understand what issues and scenarios they may face in their regular digital interactions.

### ***Samantha***

Samantha is a K–5 library media specialist at a Central Illinois school district. She has been a library media specialist for 16 years. Samantha engages her students through authentic online experiences, including discussions about digital citizenship practices. She also teaches her students how to use principles of design to communicate their ideas ethically and creatively. Although Samantha herself does not use social media in her personal life, considering herself a

private person, she understands the value her students place on it, and she strives to engage her students with the tools and skills they will need to be responsible and safe digital citizens.

### ***Ava***

Ava is a fifth grade student at a Central Illinois school district. Ava enjoys going online mainly to connect with her friends and to play video games in which she interacts with others. The opportunity for social interaction online was especially important to her during the COVID-19 pandemic, since she was unable to see many of her friends face to face. Ava believed that she was mostly safe online but recalls times when she did not think through something carefully enough and problems ensued. She also believed it is important to seek help from a trusted adult, especially when downloading programs or apps or signing up for accounts.

### ***Eleanor***

Eleanor is a fifth grade student at a Central Illinois school district. Eleanor considers herself both an artist and an author. She also has a passion for learning and enjoys using the Internet for research and school projects and using various digital tools to enhance and express her creativity. Eleanor does not use the Internet much at home, preferring it for school projects and research, and she prefers reading books and writing stories. Eleanor excels in school; to that end, she finds great value in learning how to find reliable sources of information, as well as learning how to conduct effective online searches for information for her school projects.

### ***Leon***

Leon is a third grade student at a Central Illinois school district. Leon enjoys using his school laptop and his tablet at home, as well as playing video games such as Roblox. He enjoys the community aspect of online games. Leon has had many positive communications and

exchanges through his video games and uses his online interactions as opportunities to spread kindness to others; even if they do not reciprocate, he believed it is important to lead by example.

### **Epoché**

Epoché is a critical part of transcendental phenomenology in that the researcher transcends his or her own understanding of a topic, suspending all previous experience and judgment, to shed light on new understandings (Moustakas, 1994). In my last 20 years of experience as a K–5 library media specialist, I have engaged in the topic of digital citizenship. Most recently, out of the necessity for remote learning during the COVID-19 pandemic, students and teachers received one-to-one devices, and in my experience digital citizenship has not been consistently taught. However, administrators and teachers must arrive at a common definition of digital citizenship and plan for how and when students will receive instruction in the essential skills and knowledge needed to become a responsible digital citizen.

Falloon (2020) identified as an ongoing issue the need for teacher education programs to better prepare teacher candidates for how to use digital technologies effectively and productively in schools. However, technology courses are limited in scope and tend to focus on building students' abilities in using digital resources and developing hardware and software skills (Foulger et al., 2012). Technology courses ignore other considerations such as ethical, digital citizenship, health, well-being, safety, and social and collaborative elements associated with digital technologies (Foulger et al., 2017; Hinrichsen & Coombs, 2013). Administrators and teachers face many other demands; digital citizenship is not prioritized in schools.

In teaching digital citizenship I found great inconsistencies in skills and knowledge, mostly attributable to the fact that others assumed that as a librarian it was my job to teach students about digital citizenship, as K–5 teachers have many other topics to cover during the

school day. Since most students now have one-to-one devices, it is plausible that K–5 teachers and library media specialists share the responsibility for supporting and promoting consistent positive digital citizenship habits for students. Even if there is a full-time librarian, students may have very limited instruction in digital citizenship skills, as most students may only visit the library once a week. Students need consistent and collaborative instruction in digital citizenship skills. A lack of consistent expectations and collaborative instruction may cause students to exhibit a lack of responsible digital citizenship and engage in unsafe behaviors online. The purpose of my study was to explore the perspectives and lived experiences of K–5 administrators, students, and teachers considering the skills and knowledge to become a responsible digital citizen using a transcendental phenomenological approach.

Over the past few years, I have seen an increased need for students to be able to find, evaluate, and use online information. Students need to develop critical thinking skills now more than ever due to the prevalence of bias and inaccurate information online. Misinformation and information scams are everywhere causing problems for the general public in being informed citizens (Anderson & Rainie, 2017). The presence of misinformation makes it very difficult for teachers to find, evaluate, and use reliable, trustworthy sources online.

The ability to find reliable and trustworthy sources is a lifelong skill that requires repeated and consistent practice. Students need clear direction and expectations about how to research effectively and give proper credit to the author. However, without explicit instruction or expectations, many students may defer to the easiest path and turn in work that violates copyright or contains false information. Although students may feel comfortable using their laptops, cell phones, and tablets, students have not necessarily developed technical skills that are beneficial to their future employment (Sparks et al., 2016). For example, students lack the skills to locate,

organize, and evaluate information from multiple sources. Students also demonstrate limited ability to locate information to solve workplace problems and have limited effectiveness with the use of computer software. I believe now is the time for administrators, students, and teachers to come to a common understanding of what it means to become a responsible digital citizen by holding students accountable for learning and showing positive digital citizenship skills.

Since I have taught digital citizenship skills to students, I have become more mindful of how I present content and plan lessons for students, thinking not only about technical skills but how they will learn responsible digital citizen habits. Teachers should be proactive and embed digital citizenship, instead of assuming that students know how to use technology because they grew up with it or letting them have free rein on the Internet without any boundaries, putting them in potentially dangerous situations (Prensky, 2001).

Moustakas (1994) believed that a researcher's passion for a topic fuels phenomenological research. I am very passionate the topic of digital citizenship and feel it is imperative for students to have lifelong digital citizenship skills. Technology tools and devices may come and go, but the understanding the underlying principles behind the essential skills and knowledge to become a responsible digital citizen will stay with students indefinitely.

During the research process, I put aside my own beliefs and experiences and continuously self-reflected through a reflexive journal, so that I could ask questions that would help me to illuminate the experiences of the research participants, all of whom have unique experiences and beliefs. I constantly referred back to the epoché so that I was open to hearing my participants' experiences, and that my probing questions focused on the experiences of my research participants rather than trying to get the most correct answer.

## Horizontalization and the Phenomenological Reduction

I began the process of horizontalization in which I gave equal value and weight to each of the research participants' verbatim statements to seek the nature and essence of the phenomenon under study (Moustakas, 1994). I transcribed all the data from the research participants' digital journals, interviews, and creative synthesis products as part of the horizontalization process. I horizontalized the data through the delineated horizons of digital citizenship defined and essential skills and knowledge according to the phenomenological processes. I chose the image below to represent the horizontalization process, showing the open road as a metaphor for each research participant's unique journey of describing the phenomenon and experiences with digital citizenship skills and knowledge. I used specific, nonrepetitive statements from the research participants' transcripts to provide in-depth detail about the participants' experiences.

### Figure 1.

*The Journey of Each Research Participant Through Their Lived Experiences*



*Note.* From <https://www.uidownload.com/en/vector-dhjgg>.

### Delineated Horizons

The delineated horizons are meaning units, which appear to be essential to the nature of the experience (Moustakas, 1994). The delineated horizons arose from the research participants'

responses and verbatim text from their digital journals, semistructured interviews, and information, images, and text derived from the research participants' creative synthesis products. The delineated horizons related back to the to the subsidiary research questions: digital citizenship defined, and essential skills and knowledge. In the following section, I examine each of the horizons for each group of research participants: administrators, students, and teachers.

### **Horizon One: Digital Citizenship Defined: Administrators**

I describe how the administrator research participants defined digital citizenship using their verbatim text and lived experiences that I obtained from their digital journals, semistructured interviews, and creative synthesis products. How did they experience and define digital citizenship in their role as administrators?

#### ***Philippe***

Philippe defined digital citizenship as responsibility, in that “each person has a responsibility to himself or herself for the choices made online.” Philippe defined digital citizenship in his digital journal as “one’s ability to use technology in a responsible manner. Digital citizenship also involves understanding online safety and digital literacy.” He elaborated in detail during his interview to explain that responsibility extends also to one’s actions online. He explained:

Well, I think, responsibility comes in, you know, using it in a way to not bully. You know cyberbullying is becoming prevalent and I’ve seen that, as a K–5 principal. I’ve seen cyberbullying used as a form of bullying and have addressed it. Responsibility also comes with knowing what is appropriate and inappropriate so you are not tapping into sites or areas of technology that are not appropriate for students.

He also shared that responsibility extends to taking care of one’s device and accessories and that

students should be accountable with their devices. He explained this is another aspect of digital citizenship.

You know, just taking care of it, I think that's part of the responsibility. I think they don't understand the cost, and many times the kids aren't paying anything for the technology that they're provided and, in turn, they don't respect it. Therefore, they don't take care of it, which means it comes back damaged or there's pieces lost. There's really no accountability for that. I think responsibility comes in, knowing that there's an accountability factor for you know when you don't take care of technology and there is a consequence to that.

Philippe also spoke in depth during his interview about issues with online safety and his administrative dealings with cyberbullying due to students' lack of understanding of digital citizenship and online safety. He shared that online safety is extremely important to him on a personal level, too: "Safety is always a concern of mine when I am surfing the net, ordering something online, or using social media. It is hard for me to trust people and know they aren't using my information." Philippe expanded during his interview about the importance of understanding how to use technology responsibly and appropriately, as well as knowing the functionality of technology, and knowing and understanding the different pieces of it. He explained how important it is for students to understand the capabilities of the technology they are using to effectively gather information and properly use digital tools within different platforms to organize and write or collect data. Philippe related this to his personal life in raising two boys who he felt missed the opportunity to learn about the functionality of various forms of technology and how beneficial it can be. He recalled,



My youngest has no idea really about the benefits of the different programs, like PowerPoint or making spreadsheets or anything like that, and it wasn't until the oldest of mine went to college for finance that he really tapped into the functionality of all the programs and everything that they have. I think that's why the interest was obviously was lost for him. I think schools spend more time on showing them how to tap in and do research, and not spending the time showing students the different platforms and the differences like in PowerPoint. Schools spend some time showing them the basics of it, but they don't really show students the presentation piece of it, or how to really do it. I mean if you talk to some kids they just say, "Oh I'm going to put everything on a PowerPoint slide or use whatever slide presentation." There's tons of students that put it all in a slide and read it off. Well, that's something, but that's not the point of PowerPoint. The point is not to create and put everything in one slide, it's to highlight things and use whatever you put in the slides and to talk often. So I think it's those type of functionality things that kids are missing out on and really don't understand because, even as a teacher, you know you don't really spend time on it, you know? In some schools, they don't have a media specialist.

Philippe elaborated further that understanding the functionality of technology is a large part of becoming a digital citizen, and he felt like it was a challenge to help students with this area of digital citizenship, especially considering the responsibilities already placed on to teachers. He explained,

It was all on the teachers, you know, now you're relying on teachers to provide teacher digital citizen citizenship and teaching them all the functionalities that technology has to

offer, and teachers have already a lot on their plate so they don't really spend the time doing that.

He also stated that he felt that students are misguided in what technology is used for, mainly the educational aspects of technology. He explained, "We're in an age where they have phones in their hands, you know. I've got pre-K kids who come to school with phones, you know, so kids are using technology, but it's used as an entertainment piece." Philippe reflected sadly, "I think that's unfortunate because you know there's so much more to it than just sitting your kid down and watching a video or having them play a game."

**Figure 2.**

*Philippe's Digital Image Showing How He Defines Digital Citizenship*



## *Lucile*

Lucile defined digital citizenship in her digital journal.

When I think of digital citizenship, I think about the responsible use of technology as part of a larger, global community. Thinking from the lens of a student, digital citizenship encompasses safety, respectful behaviors, and gaining a deeper understanding of tools, resources, and information that can help people connect with one another, information, and resources. However, one of the biggest components of digital citizenship for me is building healthy connections and relationships in order to expand our understanding and empathy for others.

She also felt that people have a greater responsibility beyond themselves and need to recognize digital citizenship as “the responsible use of technology as part of a larger, global community.” She also acknowledged in her interview how her perceptions and definitions of digital citizenship have changed over time. She recalled,

I feel like that every time I first thought about digital citizenship, I thought about things like don’t share your private information online, and I think that’s part of it, like the safety part of it is definitely part of it.

Lucile considered keeping private information safe and not sharing things such as your name and password to be a part of digital citizenship; however, she felt that people often focus exclusively on keeping private information safe when thinking about digital citizenship. She acknowledged “keeping private information safe as a very basic level of digital citizenship.” She pondered the definition of digital citizenship in her interview as she recalled a time in her life when she grew up with no Internet or digital community at all and how the birth of it and the development of it all has really caused her to broaden her understandings of what it means to be a digital citizen.

She shared during her interview how her perceptions and definition of digital citizenship have evolved over time.

And so I've seen the birth of all of this and the development of it. Until now, we used to be so afraid. I remember when my son was born, I was like don't put his pictures on Facebook like that's not your business, I have to have control over that and now it's come down to I asked my son's consent, "Is it okay for me to post this picture?" and if he's not comfortable with it, I honor and respect that, as part of his story or his narrative or his ability to exist within a digital community. Because either it's embarrassing or he doesn't want people to see it, or like that's part of his identity, and so I think for our students a digital footprint is no longer something sort of separate, it's part of who they are, their cell phones are part of who they are. Their online social media is part of who they are, even our younger kiddos, like I had I had students as young as maybe third or fourth grade, and I know younger students even use that.

As Lucile reflected further, she continued to broaden her idea and understanding of digital citizenship by questioning, "What does it mean to be a good citizen in general, how are you contributing positively to your group community and how can you do that digital[ly]?" She felt strongly that a greater sense of citizenship and responsibility was key to understanding one's role in being part of a digital community. She explained that being a part of a digital community requires digital citizenship, empathy, and understanding things from a student's point of view. Lucile shared the importance of administrators and teachers viewing digital citizenship from the lens of a student to see that "digital citizenship encompasses safety, respectful behaviors, and gaining a deeper understanding of tools, resources, and information that can help people connect with one another, information, and resources." Lucile stressed that empathy is critical for being a

part of a digital community and that viewing digital citizenship through the eyes of students can help administrators understand the unique digital citizenship needs of students. She further explained that “one of the biggest components of digital citizenship for me is building healthy connections and relationships in order to expand our understanding and empathy for others.” Lucile reflected on digital communities as a part of digital citizenship, and she shared a positive experience her son had during the COVID-19 pandemic, considering the potential for negative things to happen online. She recalled,

I think about the potential for things like bullying or relationship building as part of that digital citizenship. I think about my son, who just turned 15, and was home by himself most of the time during the pandemic and how his connection to a digital community helped him stay mentally well. That is how he connected with his friends and his family and when he couldn't see them in person. So that whole component as well is broader than “Don't share your name and password with people.”

Lucile shared one of her biggest takeaways about digital citizenship from this study: “I think digital citizenship should be embedded in authentic work that we do with students. We need to highlight the amazing things that can come from a digital community, along with the important structures of safety, responsibility, and respect.”

### **Horizon One: Digital Citizenship Defined: Students**

I describe how the students defined digital citizenship using their verbatim text and lived experiences that I obtained from their digital journals, semistructured interviews, and creative synthesis products.

## *Ava*

Ava defined digital citizenship in her digital journal:

Digital citizenship means to be safe and respectful and responsible on the Internet. To me, if you do those three things you are being a respectful citizen on the Internet. A respectful citizen is not rude, and they make sure they are doing the right thing.

Additionally, she shared in her digital journal that even if she sees or hears other people not doing the right thing, she makes sure to do the right thing and she tries to stick up for others by showing empathy. She explained passionately,

Even if someone is being mean to you on the Internet, always be nice to them because if someone is being mean to you, they might be having a bad day and you shouldn't be mean back to them. If someone is mean, you should walk away. For example, if someone scams you or says something mean, be an up stander, you can stand up for yourself and the bully might leave you alone.

I asked Ava what it would take for students like her to become responsible digital citizens, and she explained, "I would like to find better websites to help me do my homework. I would like websites that help you grow and learn and give you accurate information and you can trust it." Ava shared that becoming a responsible digital citizen was important to her. She explained in her digital journal:

Yes, I do think becoming a responsible digital citizen is important because if you are not responsible then you might get in a lot of trouble and you might hurt other people's feelings online and in real-life. Maybe you read something that is false and you tell someone about it and it hurts their feelings it might get you in trouble because you are uneducated about it.

Ava also told me in her interview that part of becoming a responsible digital citizen is “thinking first before doing or saying something online.” She reflected,

Kids should think before they do, and make sure that they’re being safe and respectful and responsible and that they’re using kind words because if they say something they might regret it right after, but you can’t take it back.

***Eleanor***

Eleanor defined digital citizenship in her digital journal as “being responsible, safe and kind on the Internet.” However, she found it difficult to describe online responsibility, concluding that part of the difficulty lies in the fact that safety and responsibility often overlap. She clarified, “Some of the things that could be like safe, would be in the definition of safe, and could also be in the definition of responsible too.” She explained that finding trustworthy sources was definitely an important part of digital citizenship and required responsibility. She recalled engaging in school research projects in which she relied on a teacher to help her learn specific skills, like how to find trustworthy sources online, but she felt like finding trustworthy sources of information was a complex task that required more attention. She especially felt that understanding how to find trustworthy information was important for school projects, “like if you had a research project, you would only use websites that you know have reliable information, but you can’t always tell.” She shared her thoughts on becoming a responsible digital citizen:

In my opinion, it is important to be a responsible digital citizen because if everyone believed everything that was on the Internet, then the world would become total chaos. Also, if someone says something on the Internet that you don’t agree with, it is important to not to get in a fight with a random person that you don’t even know.

Eleanor also wrote in her digital journal about what it would take for students like her to become responsible digital citizens. She explained,

I think you should give a little more emphasis on being able to tell if a website has reliable information because when we had a research project for school, the websites that we were told we could use didn't have all of the information I need so I was told that I could look on the Internet for reliable website, but I wasn't sure how to do that.

Eleanor also believed that being kind on the Internet was another critical part of thinking about digital citizenship. In her digital journal, she elaborated, "If you were talking to someone online, you wouldn't argue with them, or to put it simply, be mean to them." Eleanor explained that because of the likelihood of engaging in unsafe conversations with people with whom she did not know, she did not really go online at home, reserving Internet use for school projects.

Eleanor shared in her final digital journal entry:

I learned how to be more responsible online, check reliable sources and how to make sure that the photos that I use are legal. I also learned how to use Google Advanced Search to help narrow down what I am looking for.

### ***Leon***

Leon acknowledged that digital citizenship was "always about being safe, respectful and responsible online." Leon also felt that digital citizenship extended beyond just himself, but he considered himself part of a community. He explained, "If your online community isn't kind, respectful and responsible your parents might not let you get on it. I would also not want to be online as much in my community if people weren't kind." Leon elaborated, "It is an online community, a whole other world and it's on your screen, like you can play games, research stuff,



order something online.” Leon explained that becoming a digital citizen is important to him, as is being a part of a community. He shared,

Yes, becoming a responsible digital citizen is important because you could do the wrong thing like if you share your location or you tell your credit card number and it could mess up your whole phone. If a scammer calls you do not answer, they probably want something. If you’re playing a game and you share your password they could hack your account.

Leon explained that to become responsible digital citizens, “students need help finding trustworthy information and good websites.” He also believed that students should exercise caution when going online “because not everything online is true and sometimes you need an adult to help you.”

### **Horizon One: Digital Citizenship Defined: Teachers**

I describe how the teachers defined digital citizenship using their verbatim text and lived experiences that I obtained from their digital journals, semistructured interviews, and creative synthesis products.

#### ***Margaret***

Margaret defined digital citizenship in her digital journal in this way:

I feel digital citizenship is similar to country citizenship in that one is born into it. The minute your information hits the information superhighway, you become a digital citizen. Just as we have responsibilities as a U.S. citizen, so do we also have responsibilities as a digital citizen.

She recalled that in 2000–2001, while she was working on her first master’s degree in information technology (IT), “digital citizenship was only about protecting children from the

dangers of the Internet.” She recalled the emphasis she placed on stranger danger while studying about digital citizenship and cybersecurity. She now believed that topics like stranger danger and safety have become more amplified: “There’s just a whole world of devices and whole new younger audiences so we gotta change some things up!” Margaret also acknowledged that change comes with accepting responsibility. She explained, “First, there is a fundamental level of accepting the fact that a person accepts his or her role as a digital citizen and that by engaging online, one has to act on that responsibility.” Margaret explained that both kids and adults are digital citizens who have a responsibility with their technology and how they use it, but “often there is a reluctance or an ‘I don’t want to’ accept the responsibility associated with being a digital citizen.” She described in detail during her interview the repercussions of not accepting or understanding the responsibility of being a digital citizen:

The realization that future employers can judge you based on what you have out there, and the biggest thing that I stress with intermediate level kids is that, you know, just because Snapchat says that your video disappeared, does not mean your video disappeared, you know? Yeah you have to realize, you have to be savvy and realize a lot of the pitfalls, and more importantly, the way to protect yourself. You know if we want to talk proactive, then the things to do to make sure that you have a good experience sharing things digitally.

Margaret concluded that her ideas about digital citizenship have necessarily morphed over time and that “there’s just an entire world of what digital citizenship means, but what that means now is how are you a global citizen? How are you out there? How are you branded? What’s your digital footprint like?” Margaret created a digital image as part of her creative synthesis process to show the “breadth of responsibility digital citizens have, and how responsibility affects one’s

digital footprint.” Margaret shared about the meaning of her image, *The Whole World in Our Hands*” (see Figure 3):

My thought with this was to start with the image of a fingerprint as a symbol of each person’s unique set of information that we are responsible to protect. I collaged it with a symbol of the world representing the World Wide Web and the accessibility of our unprotected and or carelessly placed personal information to anyone who can access it. I used the idiom about having the world in our hands because that is what I would reinforce: our digital world is what we make it. Our actions and decisions shape that world.

**Figure 3.**

*Margaret’s Image to Show Digital Citizenship Responsibility*



## *Margo*

Margo defined digital citizenship in both her digital journal and interview as “using technology in a safe, respectful, and responsible way.” Safety, according to Margo, includes learning to recognize when something is a scam and not sharing it, asking permission to share photos, even of your friends, and understanding of what types of private or personal information are and are not okay to share and with whom, as well as having an awareness of cyberbullying and catfishing.

Margo explained being respectful online as “respecting others’ opinions, even when you disagree, and being able to respectfully disagree.”

She recounted her experiences teaching digital citizenship during the last year of remote learning during the COVID-19 pandemic. She explained to me that the increased virtual connection for students led to new aspects of digital citizenship for teachers to consider. Margo remembered,

It’s our responsibility as adults, as a parent or teacher or an administrator or whatever to teach students how to use the Internet or whatever appropriately and we need to model that for them. I forget where I heard this once, but someone was saying, well, I will always play video games with my child so that I can walk them through it, especially if you know the headsets are on and you know just getting them to be like hey well, this is what happened, and yes, this is an appropriate way to respond, or, no that was not appropriate, like we shouldn’t do that or like we’ve been playing for 30 minutes now it’s time that we go take a break. We’re not going to sit here for 6 hours and just play video games.

Margo explained that she became keenly aware of the impact of the increased amount of virtual connection on her students. She expanded,

Knowing like OK, I've played this game for this many hours, like that's a skill too, like knowing when, even if my parent lets me play all day long, like having that balance and like ready to go ok, I should probably do something else now.

She explained that digital citizenship required students to have a sense of self-regulation and responsibility. She dug deeper in her interview and found a connection between self-regulation and responsibility and its effect on one's digital footprint. Margo expressed frustration with helping her students to understand the significance of their digital footprint. She recalled,

I think that's really hard right now, because a digital footprint is such an abstract concept and because students are so young, like in fourth grade, 9 and 10 years old, they don't necessarily realize what they can do on the Internet right now can affect their life later on.

She expressed, however, the importance of grasping the concept of a digital footprint, helping students to recognize that a negative digital image or identity can affect one's ability to become a responsible digital citizen. She continued, "Even like high schoolers don't necessarily realize that just because you're not future focused, they're not developmentally ready to be thinking about that. It's important but it's just so hard for them to grasp right now." She felt a responsibility to help her students develop an awareness of their digital footprint as well as understand how to balance their screen time but acknowledged the challenge in doing so, explaining, "Technology, it's just rapidly changing and who knows what it will even look like in 5 years, let alone when my students are adults."

## *Samantha*

Samantha defined digital citizenship in her digital journal as “being a respectful, ethical and efficient member of the online community.” She elaborated in her interview,

Digital citizenship is how you’re representing yourself online, and just like a citizen you know? In life as we walk around in this planet, when we’re online, we need to be thinking about how we can be respectful and responsible to one another.

She explained, “We need to think about responsibility to self but also about the significance of being part of the larger digital community, showing responsibility and respect to others in that online community as well.” She vividly recalled an experience teaching her students about showing responsibility and respect online:

Okay, so you know one thing our kids love to do is watch YouTube videos. So you’re watching a YouTube video, and you’re putting in comments, maybe at the end of it because you, you know, have strong feelings about it one way or another, if you’re going to say something online to someone else you want to make sure that, well, one you’re not writing in all caps, you’re not looking like you’re shouting at somebody.

She stressed to her students,

You want to keep your comments positive for the most part. I mean you can give people suggestions, but you don’t want to say things like “that sucks, or I can’t believe you made this,” something that people would have a hard time interpreting because they’re not seeing your face, you’re not having a live conversation with them, it’s asynchronous so you know you want to really think about the words that you use. And you really want to think about “how would I feel if I read this you know”? How would I want someone to talk to me and tell me what they thought about whatever video I made?

Samantha believed students needed empathy to understand the role of respect and responsibility to self and others as part of showing positive digital citizenship while engaging an online community. Samantha mentioned that she personally did not like to share a lot in the online world and community, as she considered herself “a very private person.” However, she recognized her students liked sharing online: “Kids like to share a lot about themselves and so, you know, we talk about what information is good to share, what is not good to share, as part of digital citizenship respect and responsibility.”

### **Horizon Two: Essential Skills and Knowledge: Administrators**

I describe how the administrator research participants explained the essential skills and knowledge needed to become a responsible digital citizen using their verbatim text and lived experiences that I obtained from their digital journals, semistructured interviews, and creative synthesis products.

#### ***Philippe***

Philippe believed that to become a safe, savvy, and socially responsible digital citizen, “you must have the essential knowledge and understanding of digital etiquette, an understanding of each part of technology such as the mouse, keyboard, and monitor, how to access appropriate websites, and how to report inappropriate behavior online.” He felt that “having the knowledge of the various digital tools will allow users to better utilize their skills online.” He also explained that with a base level of knowledge, one could then “develop the essential skills needed in order to understand the functionality of the program or device, as well as how to access appropriate websites and information.” Philippe believed that students needed to develop important skills when accessing appropriate websites, such as “how to take information from a source and put it into your own words so you’re not plagiarizing.” Additionally, he pointed out in his journal that

another essential skill needed to become a responsible digital citizen was “how to speak appropriately through technology.” He stated that several instances of cyberbullying had occurred in his school because students did not have the skills and knowledge required to speak appropriately and respectfully online. Philippe shared his own experiences with being safe, savvy, and socially responsible online:

I never consider myself savvy with technology. It is probably one of my biggest frustrations. Safety is always a concern of mine when I am surfing the net, ordering something online, or using social media. It is hard for me to trust people and know they aren't using my information. I do use social media to stay connected with family and friends. I have found Messenger to be a good way to communicate with friends and family. I feel safe using it. I have been able to reestablish friendships with college and high school friends. Facebook has also allowed me to reconnect and stay in contact with friends and family.

Philippe recognized the importance of digital citizenship skills and knowledge for his students as he reflected on both his personal and administrative experiences, but he felt that “schools need further support to help students develop digital citizenship skills, and that parents should be a part of the process” to help children develop digital citizenship skills:

I think my parents need to have a better understanding of what digital citizenship is and how they can become better digital citizens. Outside of the pandemic, my students did not use much technology at school. I think it would be very beneficial to provide a workshop for my parents to attend to learn about digital citizenship and how they can teach their children how to be responsible digital citizens.

Philippe made a personal connection by recalling the lack of technology during his upbringing



and school education:

I've learned it, but I don't think a lot of our families even know the capabilities of what technology has to offer, they just know they can search something and find it. Therefore, I think that is why digital citizenship is so important for our young students, because often the students are the ones teaching their family and their parents.

Philippe also shared that in addition to parental support for learning digital citizenship skills, teachers also needed more training and support. He felt many teachers were unsure of exactly what was digital citizenship:

My biggest takeaway is that digital citizenship is not prioritized in our schools. We provide our students with technology, but do not teach them how to use it responsibly. We assume they understand how to use technology responsibly and assume that they understand all the capabilities that it has to offer when used in the correct way. I believe that teachers need professional development on digital citizenship. It has been evident through conversations with teachers throughout the past few years that teachers are not aware of what digital citizenship is and what it entails. I think we need to start from the beginning to provide the understanding and skills that teachers should be instilling in their students while they are using technology in the classroom and at home.

Philippe is very concerned about his students' safety. He explained,

Bullying is not something I tolerate, I have very little tolerance, if any, tolerance for bullying. So any type, any form of bullying, whether the bullying was happening outside of school and outside my realm, I would invite the police to come into the building and talk with the students and their families, the bullying families, as well as the victim, so they understood their rights and what they would do to pursue it and file a report.

He recalled, “Families were appreciative of this information and support from the police because often families did not understand their rights.” He also explained that to the greatest extent possible, he tried to handle all safety and cyberbullying issues by bringing the issues to the parents’ attention, letting the parents know the consequences. However, he mentioned that sometimes the police would have to become involved. He recalled in the interview:

It’s a fine line because bullying can ensue and get worse if you bring it to attention, but students also know cyberbullying is very mean. I mean it’s intentional, and it’s very hurtful and it can get to the point when we see kids end up committing suicide or doing something horrible because they just endured the cyberbullying silently.

He explained that sometimes the cyberbullying would end after he contacted parents, explaining to the parents that “if the victim receives any more communication in the form of bullying, that they should reach out and file a police report.” He further explained that if it came to that point, he said he had all the evidence to present to the family of the cyberbully, and so it was very hard for them to deny it or become upset. He recalled,

I always met with them first and gave them an opportunity to work with their child to correct it. . . . That way, if it didn’t happen, then you know the parents, as well as the child need to understand the ramifications for their actions.

Philippe said that he addresses cyberbullying immediately.

I am very upfront and transparent with all of my kids and with all of my parents that anytime I get a report of a child being bullied, whether it’s through, you know, any platform whatever, then it was going to be addressed.

Philippe also shared that in all his cases the cyberbullying never happened in school, but with district technology outside of school hours.

It was more of the outside, Snapchat and those types of platforms, but because of the cyberbullying, then I would limit the bully's online access. I would have the district put boundaries on or take access away to make it only where they could use the curricular sites that they had to use for our math curriculum, our language arts curriculum, and they would lose access to YouTube or whatever, they would have no access to any of that.

He explained that as a result, the classroom teacher would have to find alternate ways for them to receive their information and content "because of the loss of trust with that student to be safe online." I asked Philippe what it was like for him to experience safety issues that come up with district technology outside of school hours. He shared,

It really opened my eyes to what kids know about technology and unfortunately the bad things they know how to use it for, and how inappropriately they use it, and the other thing is how it made me more aware of how much access they have unsupervised outside of the home.

Philippe expressed sadly that many parents are oblivious to the unrestricted access their children have; others were "too busy with their own life, they just don't care." Philippe explained the potential dangers that also happened at school because of students' unmonitored online access:

I had students in one classroom that had figured out a way to bypass the district security and the students actually started chatting with a gentleman, actually there were two gentlemen that were in another country. The chat was very inappropriate and sexual in nature, and it was happening within the classroom.

He explained that the teacher did find out about it, but "the students were savvy enough to bypass the district's firewall." He also recalled another instance in which students figured out a

way to bypass the school's security network to "look at pornography and dirty pictures." He recalled the upsetting reaction of an unaware parent who insisted, "My child wouldn't do such a thing, they don't know how to do that." Philippe shared that some parents commonly denied that their child would do anything inappropriate, and the parents were insistent that "someone else must have gotten ahold of their computer," even though Philippe presented evidence of their child engaging in inappropriate acts. Philippe elaborated,

The parents were mad because their child lost the privilege of using technology at school because they still believe that somebody else must have got on their computer and did it, even though their child was caught in the act of actually typing messages and chatting.

In addition, he shared that the student understandably denied the behavior, and the parents supported the student, claiming, "You're calling my child a liar!" Philippe explained that the tension created an uncomfortable situation, but that he has to "stick with the facts and just present the evidence at hand." He explained to parents, "You can choose to believe your child, or you can choose to see what I'm presenting to you, but my reality is that it is not acceptable and I was seeing your child was doing it." He also told me that often, some parents would say, "Someone else must have logged in to their computer!" At that point, Philippe shared his response: "Then your child must have told them the login credentials for them to get into their computer." He explained that parents can get very upset when their child is disciplined, but in the end, he shared, "it is the district policy and my job to follow the safety policies in place."

Philippe reflected,

I don't think there's enough time spent with kids to really show them the functionality of technology and what it has to offer, and how, when it is used appropriately and responsibly, really helps to make some things easier in their life.

His own two children “cannot type on a keyboard to save their lives because they were never taught keyboarding skills, so for them that’s a barrier when they use technology, because it’s time consuming because they’re peckers.” Philippe expressed concern over the fact that his youngest child, other than playing games online, has no desire to use technology other than on his phone, “because nobody has ever taught him the functionality of it.” He stated his other son also lacked the knowledge and skills of understanding the functionality of technology devices and programs until he got to college. Philippe recalled, “The oldest of mine went to college for finance and he then really tapped into the functionality of all the programs and everything that they have, but before it was lost for him.” Philippe felt that students were missing valuable skills to develop an understanding of the functionalities that technology has to offer and acknowledged the difficulty of implementing digital citizenship skills due to the demands of teachers’ curricular agendas. He empathized, “teachers have already a lot on their plate, so they don’t really spend the time doing that with digital citizenship and teaching the functionality of technology.” I asked Philippe what it might take to help students learn digital citizenship skills. He replied,

I think it’s just like anything else, you know? I think there needs to be, at the elementary age, you know, a media specialist or some teacher that specifically has that job, or like part of their role is to introduce each of the kids to it.

He recalled a successful previous experience: “The media specialist introduced students to PowerPoint in second grade, and she had the students do a PowerPoint again in third grade, building off the skills already established.” Philippe said collaboration between the classroom teacher and the library media specialist would be required to help make a lesson like this possible. He acknowledged a benefit from the collaborative efforts: “The classroom teacher knew what skills the students were learning and could support the students in the classroom.”

Philippe felt that when students had opportunities for skill building, they could see the progression of their skills to understand the functionality of the program. He expressed that kids were misguided in the purpose and functionality of technology, beyond use of their mobile phones. Philippe added, “Kids as young as prekindergarten come to school with phones, and with phones, you know, the kids are using it as an entertainment piece.” He sadly explained that kids are only seeing the limited scope of technology. He elaborated,

I think it’s really unfortunate because there’s so much more to it than just sitting your kid down and watching videos or having them play a game. There is educationally so much more available, but often times, teachers do not understand the capabilities of what technology could truly do for their own instruction as well.

He also acknowledged the fact that many intermediate elementary teachers make assumptions about students’ level of knowledge and skills with technology. He explained,

Some teachers think that since their students are in fifth grade or in fourth grade that the students know how to do everything. Many times, I tell my teachers that students may have had the experience, but it needs to be modeled again for students. Teachers need to provide instruction in the modeling, and how students should use the program or tool, and it always goes back to building off what students have already done.

Philippe also expressed in his interview that “teachers do not always fully understand the capabilities and functionalities of what technology can offer.” He told me, “I always go by the saying about assuming nothing, and I think teachers assume too much.” He said,

There’s a lot more educationally that can happen, and I also think it comes down to teachers needing to understand the capabilities of what technology can do for their instruction as well as how they can utilize it to enhance the curriculum. Nowadays,

teachers play a game and or use it to entertain for 5 minutes. I think it really comes down to the teacher taking it responsibly to not just use it as a reward event.

I asked Philippe to say more about the ways that he saw teachers teaching responsible digital citizenship skills. He recalled students using Google Classroom: “It is a great platform for students to utilize and provide feedback to one another, allowing students an opportunity to collaborate and create.” Philippe liked the idea of teachers using the Google Classroom platform to teach a variety of skills to students.

Well, I think students learn editing within Google Classroom, I mean if they’re going to go in, they’re going to offer feedback and edit within a document, you know they’re working together. I think that is an important skill for students to understand how to do that.

He recalled several students who were successful in using Google Classroom to collaborate. He shared another example:

They could make videos and it was evident that the students understood the skills associated with using the software or programs. When you’re talking with them, and you have that conversation of the process that they took to get there, it is evident that they knew the proper way to do it, and if they didn’t they knew who to go to learn how to do it.

He gave other examples of skills that required students to understand the functionality of the technology being used: “A student can explain the process used to get to the end product, or know that Google Slides is used to present, or they know how to embed information within a slide in the presentation.” He shares with his teachers about the importance of building off previous skills:, “Students may have had some previous experience, but you need to model it,

and provide the instruction during the essential modeling progress of how to use it, always referring back to and building off previous skills.” Philippe shared that modeling is crucial for students to develop needed skills. He explained,

I think anything a teacher does, whether it’s with technology or anything interactive, modeling is essential for kids to understand and to see it. It goes back to that gradual release of responsibility, and just because a teacher models it once, doesn’t mean the teacher shouldn’t do it again. I always tell teachers, we can’t assume that because kids have done something once, or even three times, that they have grasped it.

He reiterated that teachers should not assume that students have technology skills. He said, “Many kids don’t know what digital citizenship is or what it looks like or even sounds like, so we’ve got to go back to the basics, and we’ve got to have teachers get back to that foundation.” Philippe also acknowledged that some students did understand digital citizenship and were “role models for positive digital citizenship, and were not afraid to take responsibility to report inappropriate behaviors.” He remembered,

One of their classmates was logged in and was savvy enough to have another website open behind the browser window. When the teacher came around, they closed out of the inappropriate site. The classmate saw them doing that so they made the teacher aware, so the teacher became more observant and was able to situate herself closer to the student to see the student toggling back and forth and being where he should not have. The student did it so quietly that no one even knew, but that they were able to report it and were not afraid to do so.



## *Lucile*

Lucile shared, “Having knowledge of what digital citizenship means as well as having an awareness of both the positive and negative implications for existing in a digital society is one of the most important things about becoming a responsible digital citizen.” She explained,

You need to know what digital citizenship means and what the positive and negative implications are for existing in a digital society. You need to know how to use digital tools, the Internet, and the potential impacts of your interactions. You need to have empathy and understanding for others, critical thinking skills, and an understanding of privacy, data, and the scope of our online interactions.

Although Lucile acknowledged that online interactions could be both positive and negative, she shared, “I like to think of this in terms of positive opportunities, such as creating a community of learners, using media for creativity and positive change, and staying safe.” However, she recalled a negative online interaction that involved three fifth grade girls at her school who interacted in a negative and dangerous manner:

The students used social media in a very sophisticated way to bully and target another student. It went so far as a student creating fake accounts with another student’s name and using that account to send messages saying you should kill yourself.

Lucile shared that she had to involve the school resource officer, and even though the messages happened outside of school hours, she had to address it because parents were calling her and texting her screen shots of the messages. She shared, “Even those these things happen outside of school, when they spill into school and disrupt the learning environment, I have to step in and see what’s happening.” She told me it was a very eye-opening experience for her.

I saw how deeply kids that age might be feeling and sometimes those feelings are pretty dark. It actually helped me to understand kids better and the lengths that kids will go to try and sort of feel their own bad feelings by hurting others. It also was eye opening how quickly social media accounts can become really dangerous, like telling another child to kill themselves is really dangerous, because sometimes the kids really do it.

She related this experience with the importance of responsibility to self and to others:

There were three or four other kids who knew what was going on because they saw it and didn't say anything. It could have come to the surface sooner and stopped sooner. Even if it's not about you, if it's about someone else, just doing nothing is not okay, that was a big piece of it, there were kids who knew and didn't say anything.

Lucile believed that teachers should teach students responsibility and how students can become "upstanders" who not only report unsafe behaviors but stand up for others. She also thought teachers should embed digital citizenship skills in authentic contexts with students: "We need to highlight the amazing things that can come from a digital community, along with the important structures of safety, responsibility, and respect." Lucile felt that her online interactions in her digital community comprised a large part of digital citizenship. She believed the social connections she developed online had had a positive impact on her life. She described her social connections online as "global and influential in both big and small ways." She recalled, over the past years, several instances in which she was able to use technology to maintain her social networks and connections with others. Lucile explained,

I have been able to keep in touch with friends and family who live both near and far, even across the globe. I can follow the adventures of former students, relatives, friends, and

even people I don't know. It allows me to feel connected in ways that have not always been possible for me in person.

Lucile shared a memorable social media connection that she formed with someone online:

The connection started with a request to edit a story she was writing in a forum I followed. I enjoyed a previous story she had published, so I connected with her to see if she still needed help. This connection sparked a friendship that has lasted for several years.

Lucile explained the positive impact of this social connection despite never meeting this person in real life: "Although I will probably never meet this person in real life, I consider her a true friend." She explained,

We have both been there for each other in different ways. This might be through sending funny memes, sharing sad stories, or just laughing about something that happened. I don't talk to her often, but when I do, I know she is a good friend. The connection we made was only made possible because of the digital connection.

Lucile also explained that empathy was an essential skill needed to engage responsibly and respectfully in online communications and digital communities. She elaborated in her journal, "Overarching is a sense of critical thinking about your online interactions and the potential impact they may have on yourself and others." She explained that

Digital citizenship requires people to show empathy, as well as have a sense of responsibility to self and to others, and knowledge about how to protect oneself and others, and knowledge for how to protect your personal information and that of others.

Lucile shared specific skills essential to becoming a responsible digital citizen:

Specific skills might include ways to access and utilize digital information, knowledge for how to protect your personal information and that of others, depending on your use of digital technologies, you would need specific skills connected to programs, apps, the Internet, or other technology you are using.

Lucile recalled an experience as an administrator in which she helped her students learn about the responsibility to protect themselves and others online. She explained,

I've had to talk through digital responsibility with students, helping them to understand that by talking to each other on cell phones, texting, or interacting on apps like Snapchat, helping them build an awareness that there is a community, but I don't know the depth of their understanding about responsibility, unless we teach that to them. I think that has to be explicitly taught, just as it has to be explicitly taught in our classrooms how we have responsibility to our classroom community.

She believed that by integrating authentic learning experiences into learning, students could gain digital citizenship skills such as responsibility and empathy to engage in positive, responsible social interactions. She said, "We have a responsibility to our school. If we don't teach those things explicitly not every child will have full access to that understanding. I think it is developmental for sure too." Lucile recalled the increased online social interaction among students during the COVID-19 pandemic, especially through Google Classroom and Seesaw. She explained,

They are interacting with one another, third and fourth graders for sure are connected that way, especially during the pandemic, their experiences and their capacity expanded because it had to, but I still believe that that sense of responsibility has to be explicitly taught.

Lucile reinforced that teachers should explicitly teach responsibility to students, but to what degree varies greatly by teacher and their comfort level with using technology. She said, "For example, a teacher that I had at my school last year was brand new. Well, she wasn't a brand new teacher, she had taught and then she went back home to raise her kids and then she came back, so she was like in her 30s, I think. She hadn't been in the schools in a while, and just understanding the idea of building communities where you build healthy bodies and healthy habits of mind together, that was . . . It was a lot, but she had to stop and learn the digital community piece."

Lucile reflected further and concluded that during the COVID-19 pandemic, many teachers just did what they needed to do to get the online classroom to exist successfully and were not necessarily explicitly teaching digital citizenship skills and digital responsibility. "I don't think classroom teachers are all thinking about that, especially in elementary school. I think that they need support to think more explicitly around that because we are all one-to-one now." She also shared,

I would say that my gut instinct is that many classroom teachers thought it was the responsibility of whoever was doing computer teaching to teach the explicit skills associated with digital citizenship. It was that mentality, it was a separate, not my problem, but I think the pandemic forced us all to say, well, I need to be connected in this way, so in some ways I think it's going to bring the technology and the classroom even closer together, I hope.

Lucile shared in her interview that teachers need support and guidance to fully understand responsibility and recognize that what they are teaching is digital citizenship. She made a parallel between the importance of establishing both a successful classroom and digital

community. First, she said, “I would ask teachers to talk about what makes a classroom community.” She shared her idea of a classroom community as “a successful, safe, accessible, equitable place to learn.” She would then consider how that translates to a digital community and ask teachers to identify what that might look like at their own grade level. She emphasized,

So there’s technical skills like using devices and all of that, but I think that’s separate from this conversation. I think it’s about helping students build an awareness, like even though you’re not physically in the same place you’re in a community.

Lucile used a real-time example from our interview to illustrate her point:

We’re having this community, this conversation, this collaborative experience, and so our responsibilities to one another, are the same. I have a responsibility to you to listen and listen carefully to what you have to say and then listen to, understand your question, and the focus of your research and what it is, and then I have a responsibility to interact with you in a way that’s respectful and I have a responsibility to be calm and encouraging.

She shared in her interview that a classroom teacher’s reaction to pandemic teaching would influence the future direction of their instruction: “I think some teachers will put a wall up and say I don’t want anything else to do with that for a while.” She also acknowledged how learning a vast array of digital skills to adapt to virtual learning had placed trauma on both teachers and families. She reflected on the varying experiences of teachers within her school building, some of whom “embraced the opportunity to change up their mode of teaching from using physical books, papers, and pencils, to going digital, and others whom did not.” She also saw the same variance in the way teachers viewed digital citizenship:

For some, digital citizenship is don’t tell anybody your password or where you live and it’s that safety component of digital citizenship. They think digital citizenship is when

students log in to Google Classroom. Other teachers have a greater understanding of digital citizenship, but I think allowing space for teachers to go out and talk about that and what that might look like, or what the potential is for digital citizenship ... I don't think it's going away because the technology is here, the connection is here, everybody's connected on their devices in ways that even 5 years ago weren't happening.

She shared with me how quickly technology has evolved, especially during the last year, and that it is increasingly difficult for teachers to ignore new technologies. "New technologies are beneficial in so many ways, like access to information and knowledge and connections to other people, places, and experiences." Lucile pondered further about the myriad of skills that students need to reap the benefits of digital learning technologies. She shared that there was an "overwhelming number of skills associated with digital learning," but in her interview, she stated,

They need to know how to use their devices, how to troubleshoot when something's not working right, and create passwords that are not easily hacked. They need to know how to share enough of themselves to build a community, but not so much that they're not in that safety zone. They also need to know when something all of a sudden doesn't feel safe anymore. They need to know how to stick up for somebody, or how to advocate for themselves. They also need to know how to be an advocate for others. They need to know how to use the various programs or platforms, save files in a way that's easy to access, how to search, and how to critique and analyze that search and how to know if it is a trustworthy source or not. They need to ask critical questions and know how to analyze the source again.

Lucile recalled the skills and knowledge she believed were essential to becoming a responsible digital citizen, but she explained that some of the essential skills, like evaluating and analyzing trustworthy sources of information, are skills that “even many adults do not have.” Regardless, she shared, “it’s something that we can start to build an awareness of, especially in those upper elementary grades, you know they can start to say hey does this seem right? Can you find the same information in another source?” Lucile also shared in her interview that searching techniques and analyzing information for trustworthiness were not skills that most elementary teachers taught students: “My experience has been a lot of this mentality, ‘oh, the IMC teacher, the tech teacher, that’s their job to teach them how to search’ and so when they get to me, they should know how to search.” She also expressed concern over the fact that it would be difficult for students to develop website evaluation and web-searching skills adequately in a once-a-week technology class. She felt that “digital citizenship skills were the responsibility of all teaching staff, not just the responsibility of the librarian or the technology teacher.” She shared,

I’m not a huge fan of the one and done thing, but even just bringing awareness around it, I mean we all do Internet searching, so just highlighting some techniques and some things to understand that are consistent for everybody I think can get us a long way.

Lucile explained the important of consistency of skills instruction and the willingness of staff to work collaboratively with the librarian to integrate digital citizenship skills.

We need to start having a common understanding of the tools and strategies that the librarian uses as well as the tools other classes use so it is consistent from class to class, and so there is vertical and horizontal alignment among grade levels.

She proposed establishing a professional learning team, a task force, or a group or committee of people to work together to develop a guiding document highlighting some of the founding



principles of digital citizenship skills. Lucile reflected on a time when collaboration was not happening during a library lesson:

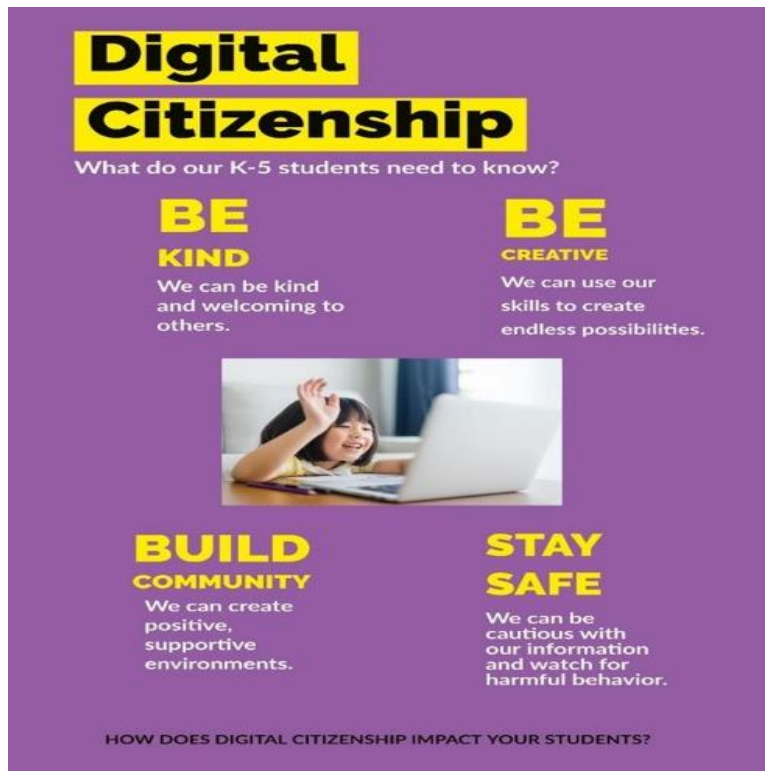
A classroom teacher picked up her fourth grade class and observed a library lesson in progress. The classroom teacher came to me and she couldn't believe what the librarian had taught the class. The teacher was upset because the librarian taught the students how to cut and paste from a search article. The teacher could not believe the librarian taught them that! The classroom teacher was upset because she had worked so hard to teach kids never to cut and paste from a source. It was a very specific example of something where the classroom teacher and the librarian both had conflicting ideas about how that should be taught, and they had to come to some consensus.

She also pointed out that prior to the COVID-19 pandemic, there was not a sense of urgency to teach searching skills or other digital citizenship skills to students, "as long as they could get online and find some information, and do something with it." She said that before the pandemic "it just didn't come to the surface as a critical component of work, but now because we are all one-to-one it has changed things."

Lucile expressed her key components of digital citizenship in her creative synthesis process, by creating a social media post (see Figure 4).

**Figure 4.**

*Lucile's Social Media Post Showing the Skills and Knowledge Needed to Become a Responsible Digital Citizen*



### **Horizon Two: Essential Skills and Knowledge: Students**

I describe how the student research participants experienced the essential skills and knowledge needed to become a responsible digital citizen using their verbatim text and lived experiences that I obtained from their digital journals, semistructured interviews, and creative synthesis products.

#### ***Ava***

Ava explained, “The most important parts of digital citizenship are to be respectful, responsible, and safe on the Internet.” She explained that to be respectful, responsible, and safe, she had to make certain responsible choices online: “If people are being mean to me, I’ll just ignore them on the Internet, or if an unsafe website opens, then I tell a safe adult and then I just

don't use it." She explained the importance of responsibility online and emphasized that kids need to know "when to ignore something and when to report something and ask for help." She believed that showing kindness to others online helps her to stay respectful, responsible, and safe online. She wished that all kids would show kindness to others online. She recalled a recent experience in which she was playing a video game, "and someone said they liked my pet and my game." Ava smiled as she recalled her response, "I said thank you." She said, "It makes me feel good when somebody shows kindness online and I hope that by me showing kindness to others, they will show kindness to others online." Ava felt like most of her experiences online were mostly positive, although she did say that she has had some negative experiences in which kids "were being mean, hurtful, and bullying each other on an online game." She used the reporting feature in the game to report the user or block them, but she never engaged them. She also explained that she is careful online and this helps her to be safe,

like if someone just told me to go to a website, like if they just sent me a link to a website, I just wouldn't go. I would read carefully, make sure that it's a safe website, or I just don't go at all.

I asked her what kids needed to know to keep themselves safe online, and she told me, "Kids should think before they do, and to make sure that they're being safe and respectful and responsible and that they're using kind words." She explained by thinking first, kids can avoid saying things they might regret or getting themselves in an unsafe situation. She said she has learned this the hard way, recalling a time when she trusted a download for a game as safe. She explained,

I did not read the reviews of the game, instead, I just downloaded it without thinking.

Yeah, I don't recall what app it was, but it deleted all my storage and I had to delete it because I had gotten a virus.

She recalled another instance where she had not thought carefully enough about what she was doing online:

Well, the person sent me a link to a website that looked like Roblox, but it wasn't, so I put my username and password for my account and my account ended up being hacked, and they took all my pets!

Ava reflected on her negative experiences and in doing so, she realized "the image of the download did not look authentic," and she wished she hadn't downloaded it. She explained, it just "didn't look right." She cautioned kids to be safe online and suggested that, "they need to make sure to ask an adult for help, and to help them download apps and make sure that they're safe." She explained how easy it is to make a mistake:

Kids do not always know if something is safe or not, so they should ask a trusted adult to help them, read the reviews, and read the privacy policy. Also, kids should be nice on the Internet and also don't download things if you're not the age requirement of it.

Ava explained in her final digital journal entry that kindness is really the best way, in her opinion, to keep safe and be socially responsible online. She elaborated that through kindness, kids can show empathy to others:

Even if someone is being mean to you on the Internet, always be nice to them, because if someone is being mean to you, they might be having a bad day and you shouldn't be mean back to them. If someone is mean, you should walk away. For example, if someone

scams you or says something mean, be an upstander and help them. Also, you can stand up for yourself and the bully might leave you alone.

Ava also said that one's ability to be responsible online also comes from "having an awareness of others and accepting the fact that others might not have the best intentions, but still sticking with showing kindness even in difficult situations." She wrote in her journal,

You want to be aware of your classmates and your teacher and listen to them. You want to be aware that there are mean people out there on the Internet, but you need to just ignore them. You want to make sure you are doing the right thing like using a safe website.

She indicated another example included staying safe and communicating only with people you know and trust. She vividly recalled a memory:

One time when COVID started me and my friends made a Zoom. We stayed up late talking because we couldn't do anything because of COVID. There were five of us and we were friends from real life. I told one friend about it, and then that friend told the others by word of mouth and we all got together online. We all had our cameras on so we could see each other and talk. We played Roblox together through the Zoom by looking for each other's screen names. We shared our screen with a friend who did not know how to play so she could learn. It was really fun to see everyone because not everyone had Face Time to talk. I remember everyone being really nice, kind, and we were all glad for a chance to see each other online.

Ava created a digital poster during her creative synthesis process to explain the importance of showing kindness to others, as well as thinking before acting online (see Figure 5). She reflected on both positive and negative experiences online, especially on times when she had

not thought before acting, which had resulted in problems for her online. She reiterated, “I want kids to know they should always think through something before doing it.” I asked her about her choices of images for her poster. She told me, “Sunflowers and puppies make me feel happy and spread my message about being kind online.” Ava felt it was important to be kind to others online and smiled when she recalled instances of kids being nice, “even if they just say thank you.” She elaborated,

I am going to put the word nice in the middle of the poster with the largest font because it is the most important word. I am going to make it yellow because yellow is a happy color, like a smile.

Ava felt strongly that she had a responsibility to do what was right, “even if others aren’t doing that, I can be nice and kind to them.”

**Figure 5.**

*Ava's Digital Poster Showing the Importance of Being Nice and Kind to Others and Thinking First*



Ava stated in her digital journal that to become a responsible digital citizen, she felt like she needed essential skills “to know how to find reliable, trustworthy, and safe websites.” She explained, “Maybe you read something that is false, and you tell someone about it and it hurts their feelings. It might get you in trouble because you are uneducated about it.” She explained that she tries to be cautious online, and that caution is an important skill for students to learn because “it’s hard to know sometimes.” She explained that kids like herself “should think before they do, and to make sure that they’re being safe and respectful and responsible and that they’re using kind words.” She explained, “Read carefully make sure that it’s maybe a safe website, or just don’t go at all.” Ava explained that she relied on a trustworthy adult, her mother, to help her develop digital citizenship skills and to stay safe online. Ava told me that most importantly,

“Kids need to be safe, respectful, responsible, and just to make sure that that they’re safe mostly.”

*Eleanor*

Eleanor shared that responsibility plays a big role in being safe, savvy, and socially responsible online. She relied on her teachers to help her develop online responsibility skills. I asked her what were some things were to be aware of when interacting online. “Safety for sure,” she explained:

When I am interacting online some things that I like to be aware of is mainly who I am talking to. Like if I was playing a video game that lets people talk to each other and someone with a username that I don’t recognize wants to talk with me I would log off because that person could be anybody.

She also recognized in her interview that to be safe online, kids needed to be socially responsible too. For example, “like not getting into an argument with people or not saying hurtful or mean things.”

Eleanor also shared that finding trustworthy websites and sources of information was one of the most important skills needed to become a responsible digital citizen. She expressed with frustration,

Well, it is kind of annoying after a while, if you can’t find what you’re looking for. I try and find something. And then, if I get to the point of being slightly annoyed, then I would ask my teacher for help, or whoever’s there, the librarian or whatever.

Eleanor explained that asking a teacher for help usually solved the problem, but she explained that other kids in her classroom did not always take that same level of responsibility,



and that kids needed more help in finding reliable sources. She recalled a time during remote learning during the COVID-19 pandemic:

So this is during online class in fifth grade, like people would go off on other sites in class. It gets to being really irresponsible. The teacher would call on a student and ask them a question and the student had no idea what was going on. I felt kind of sad for that person because they won't know the material that we're talking about and what if it comes up on a test, and they won't know the answers and they might get a bad grade or something.

She also said going to untrustworthy or unsafe websites and being socially irresponsible led to problems. For example, she said, "Don't talk to people that you don't know and don't like click on an email you get from someone you don't recognize, like don't click on any links or anything like that." When I asked her more about responsibility and safety online, she also explained, "Don't give your address, and phone number out to a random person. That's definitely irresponsible and anything else like that, like a phone number or an address, even like your real name." She said sometimes kids might struggle with when it is safe to share a name, "like if you are creating an account or something or logging in to a safe website that you know and trust," but most of the time she felt it is just irresponsible to share that information. Eleanor stressed the importance of knowing how to find reliable information:

I think that what you are doing already is good but, I think you should give a little more emphasis on being able to tell if a website has reliable information because when we had a research project for school, the websites that we were told we could use didn't have all of the information I need so I was told that I could look on the Internet for reliable website, but I wasn't sure how to do that.

Eleanor felt that having the skills and knowledge to effectively search for and find reliable information online was critical to become a responsible digital citizen, but she did not feel prepared to search effectively. In fact, in her creative synthesis, she created a digital story, narrating the tale of a student who relied on one website and used unreliable resources for a class research project. Eleanor described unreliable websites as “weird websites.” She added,

So my teacher gave us a link that were looking on and are trying to find if the website was reliable or not and we looked at all different things, and you know it was like it was about an octopus that lived in a tree, and in it there was all like ads for all sorts of strange things on the side and so that’s when we figured out that it wasn’t reliable so yeah it doesn’t exist, what in the world is this?

She explained how that lesson stood out in her mind as she reflected on the essential skills and knowledge needed to search and find reliable sources of information.

I asked her what skills she thought kids needed to become responsible digital citizens. She responded, “They need skills to know like how to figure out if the source or website actually has good information or not.” She told me,

If you’re doing a book report on something and you’re talking and your teacher’s, like, “That is definitely not what happened,” or something like that, and so like for that, you want to know that everything in your book report is actually true because if everyone believed everything that was on the Internet, then the world would become total chaos.

Eleanor shared in her final digital journal reflection that students like her needed more instruction in how to find reliable and trustworthy information online. She used her real-life experiences to spark her creativity and artistry to narrate and illustrate “Eleanor’s Story,” in which she describes the experiences of a young student, Eleanor, who has the misfortune of

falling for misinformation, relying exclusively on one source of information during the research process, and lacking the skills and knowledge needed to do a proper research report. When the student presents her report to the class, they laugh at her. The story goes through Eleanor's research process and ends in the teacher using the experience as a teachable moment to re-explain the research process to the class. Eleanor narrated:

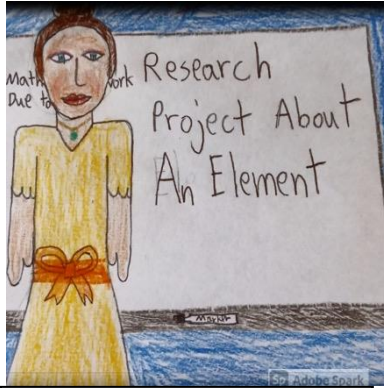
Once upon a time, there was a young girl named Eleanor who loved learning about the Periodic Table of Elements. So when her teacher, Miss Gilmore, told the class that they would be doing a research project on an element of their choice, Eleanor knew that she wanted to do her project about Bromine, her favorite element. Eleanor heard Miss Gilmore say to use multiple sources of information, but Eleanor didn't pay any attention. Later that night, Eleanor went on her computer and typed in "elements". She found a website called EverythingAboutElements.com. She read all they had about Bromine and then Eleanor wrote her report. The next week, everyone's project was done. Eleanor volunteered to be the first to talk. She walked up to the front of the room and read her report. "I researched Bromine. Bromine was discovered in 1924 by Christopher A. Douglas and Nancy Pierre. It is the heaviest noble gas." As Eleanor talked on, she noticed all the other students whispering. Once she was done talking, Miss Gilmore asked Eleanor where she got her information. Eleanor answered, "the Internet." Miss Gilmore gently told Eleanor, "I'm sorry but I think you might have your information wrong." Miss Gilmore tells the class Eleanor made a mistake that everyone can learn from. Later, Eleanor helps other kids learn about reliable information.

**Figure 6.**

*Illustrations from Eleanor's Digital Story*



Eleanor is excited to research about the periodic table of elements.



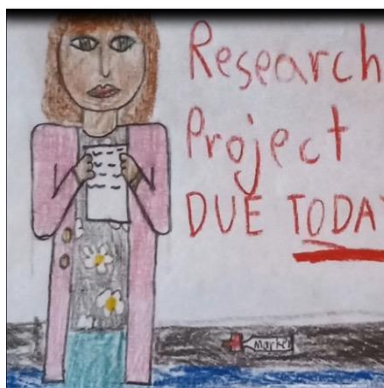
Miss Gilmore explains the research project to the class.



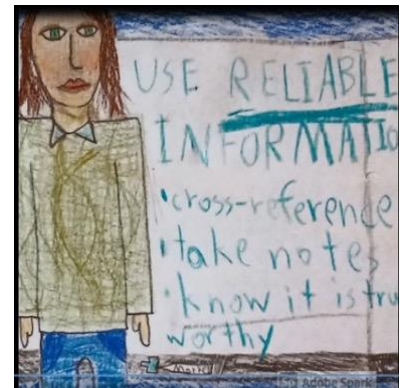
Eleanor, at her computer, researching her favorite element, Bromine.



Miss Gilmore says the research project is due today and students will present to the class.



Miss Gilmore gently points out a mistake in Eleanor's research project.



Miss Gilmore explains Eleanor's mistake and uses this opportunity to teach the class about doing research effectively and using multiple sources.



Eleanor uses her knowledge to show other students how to research.

## *Leon*

Leon shared the importance of knowing whom he was interacting and communicating with online in his digital journal. He explained, “When I am on a game like Roblox, and they say something to me and I don’t know them, I would probably leave the game and rejoin another Roblox game. I want to know who I’m talking to.” He explained that knowing whom he was interacting with caused him to feel more at ease online. He elaborated more about the importance of knowing with whom he is talking:

If you don’t know who you are talking to, you could do the wrong thing like share your location or tell your credit card number and it could mess up your whole phone. Also, if a scammer calls you do not answer, they probably want something. If you’re playing a game and you share your password they could hack your account.

He felt that knowing safety tips to protect himself was an important part of interacting online and that knowing and understanding was important to becoming a responsible digital citizen. He felt confident in his ability to protect himself and stressed that kids should not interact with people they do not know online.

In addition, in his digital journal, Leon also explained that kids need skills and knowledge to help them find trustworthy information and reliable websites. He recalled a time in third grade when he was doing research and drew attention to the fact that kids needed to be careful of information they find online. He explained that “they need to always double check their work, they need to check on their job to make sure they’re being cautious.” Leon said that he always tried, to his best ability, to check over every single aspect of his work by looking for trustworthy sites. He said at school, “a teacher helps you know what sites to use.” He also said that responsibility extends to “knowing what games and apps are trustworthy and reliable.” I asked

him what he looked for before downloading a video game; he said, “Reviews of the game, like if it has a five-star review, I think I’ll download it, but if it had a one-star [review] revealing stuff like it scammed, like then I wouldn’t download it.” Leon said he always goes through that process with an adult, if needed, and recommends younger kids who do not really know about the skills needed to evaluate games or sites should have an adult help at home, or a teacher at school.

Leon mentioned repeatedly during his interview that being a digital citizen is more than just the actions of self, but that it involves others too as part of a community. Leon described it as “an online community, and we should be safe, respectful, and responsible.” He agreed that there were things that he did to keep himself safe online, “like not spreading passwords or chatting with people you don’t know,” but he also explained, “you don’t think of just yourself, but you think about other people too.” When I asked Leon what younger kids could do to engage in a socially responsible way, he told me, “Spread kindness to others and get an adult from home to help, or a teacher’s help at school.” Leon expressed concern for kids’ safety online and explained, “Sometimes if they’re younger they don’t know a lot of stuff and they get asked for like your address, then they’ll just tell it because they didn’t know it could scam you or something.” Leon explained how he and his mom worked together to help set up accounts online. He said, “Knowing what you are getting into can help you be more responsible online.” He reiterated again about online safety and seeking a parent for help, “Yeah, that’s probably really important especially if you’re younger.”

Leon said another part of being a responsible digital citizen is to be responsible online and show kindness to others, even in times when others may not be showing kindness or positive digital citizenship in an online community. Leon recalled a time when he was playing his

favorite video game, Roblox, and witnessed someone being hurt on the game. He recalled, “So someone scammed this person on Roblox, and I felt really bad, and then I gave them the thing that they got scammed [out of].” Leon explained that it was a simple act of kindness, but he hoped that showing this kindness to others might inspire others to become more socially responsible and kind online, too. I asked Leon how the person responded to his action; he smiled at me and happily said, “They said, thank you!” Leon explained to me that this act and acknowledgment made him feel good inside; he felt that he had a responsibility to himself and to his online community to show others that they don’t have to bully others and that they can show happiness and kindness online by being a role model. He recalled another example:

I was playing this game, Tower of Light, and it’s really fun, with my friends and my sister. I fell in the game and my friend supported me. They said, “You can do it!” and it cheered me up. Getting support from my friends cheers me up. I said thank you back and they felt happy.

He also reflected on what he considered the most important elements of being online. He explained in his interview,

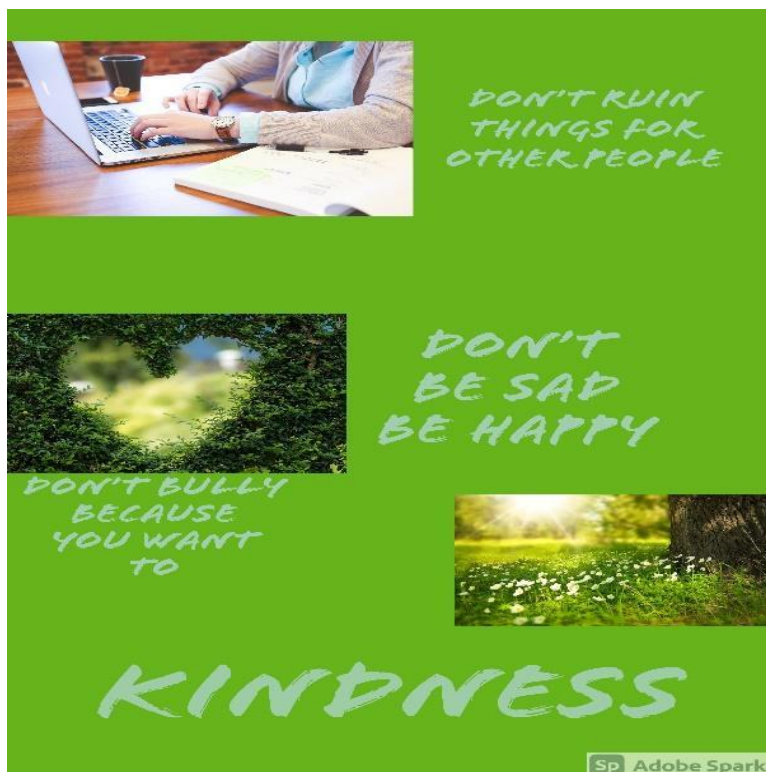
Being kind, respectful, and responsible is the most important because being kind means don’t bully people, being respectful, like don’t say anything mean, and responsible means being careful before opening a website you don’t know. If your online community isn’t kind, respectful, and responsible your parents might not let you get on it. I would also not want to be online as much in my community if people weren’t kind.

Leon created a digital poster (see Figure 7) as part of his creative synthesis process to show the responsibility of each person to not ruin the online experience for others, and that each person has a social responsibility to think about their actions and words online and how they may

affect the online community. He explained that he chose a heart image for his poster “to remind kids that they are loved, and that being online should make you happy not sad.” He chose green letters and background because those are “my favorite colors and very calming colors.” Lastly, he explained, “kindness is the most important thing, so that is why it stands out.”

**Figure 7.**

*Leon’s Digital Poster Showing the Importance of Kindness and Responsibility Online*



## **Horizon Two: Essential Skills and Knowledge: Teachers**

I describe how the teacher research participants experienced the essential skills and knowledge needed to become a responsible digital citizen using their verbatim text and lived experiences that I obtained from their digital journals, semistructured interviews, and creative synthesis products.



## *Margaret*

Margaret explained, “Citizenship comes with responsibility.” She felt that for technology users to be able to engage in digital citizenship, “they need knowledge of how digital media works, how to protect their privacy, and how to respect the rights of others.” She also explained that “knowledge must necessarily evolve over time and with each new digital tool used because the rate of change with digital technology has been exponential.” Margaret came up with several considerations as she thought about the essential knowledge to become a responsible digital citizen during our interview:

Who is accessing your digital output? How are they accessing it? Who sees the video you posted on social media? Do devices give commerce the ability to hear and detect more things than you realize? How are you affected by what you post publicly? What is responsible use of technology for which you are not the owner? What is the catch of the things that are “free” when it comes to your privacy?

She also shared many essential skills she believed were important to becoming a responsible digital citizen in her digital journal:

How to use digital technologies to improve and expand your world. How to incorporate collaborative technologies to increase efficiency. How to maintain the privacy of your personal information. The basics of how digital hardware works. Some basic troubleshooting. Knowing when to get help.

Margaret stressed how much her own views of digital citizenship skills and knowledge have changed over time. She recalled,

Previously, we taught students about “bad people” who would find them if they gave out too much information online. Now, as teachers, we are compelled to still help students

stay safe, but the ways their privacy could be compromised is varied. We also must teach them the type of identity they want to present to the world.

Margaret also recalled using Google’s digital citizenship program with her students: “I wanted to see how the students approached digital citizenship within that platform.” She felt her students learned various skills through the Google digital citizenship program such as “making appropriate passwords, keeping information and passwords safe by not sharing, as well as reviewing important considerations for cell phone usage.” She said she really appreciated the fact that “the program helped kids understand the importance of maintaining privacy with their cell phone and personal information.”

She also explained in her interview that students should be aware of the privileges technology grants to them as part of developing a respect and appreciation for technology. She recalled that in e-learning during the COVID-19 pandemic,

We did Flipgrid, we could Zoom, we had a pandemic and could still have school . . . that’s a huge privilege with our digital media and our district . . . you know it is the district’s vision to make sure every kid could participate in something like that.

She also explained the value of sharing her own technology practices with her students: “They see a lot of my world up there and they’ll ask questions, like ‘why do you have so many tabs up?’” She explained the rich conversations about skills and knowledge that occurred with her students because of her willingness to share. She explained to her students, “Maybe I have 10,000 tabs up because I’ve got a Zoom here and I have a Google slide here.” Her students were “full of ideas and suggestions for how I should organize my tabs, and they even suggested user groups I might like based on my interests I shared with them.” She explained the value in sharing her digital world with students and how this helps her learn skills from her students all the time:

“I actually listen to them, you know, like I would stop things and say okay tell me what you mean and show us, do it in front of the class, so we can all learn it.” She felt that giving her students the opportunity to contribute their ideas about digital citizenship skills and knowledge and about things that were important to students helped them to become more responsible with technology in the classroom.

Margaret also discussed some of the social aspects of being a digital citizen. She explained in her digital journal about her own personal use of Facebook as a way to communicate digitally. She described Facebook in this way:

It is a social lifeline to me to my family and friends all over the world. Each day, I get to watch videos of my great-niece in Massachusetts, or photos of my best friends’ kids accomplishing great and small things. I have started several groups on Facebook, some for my crafting passions, others for prayer intentions.

She mentioned that although she enjoys the social connection made possible through Facebook, she doesn’t spend a considerable amount of time on Facebook but uses it in a savvy and socially responsible way. She added,

I have it streamlined so that I see mainly the people I wish to see and have hidden those I don’t. Sometimes, I have hidden people whom I thought were closer friends to be because Facebook seems to be a gateway for narcissism. At one point, I had a real emotional reaction to people who I thought were friends going to do something without inviting me. In hindsight, I can now say if it were not for Facebook, I would not have even known this occurred and would have been blissfully ignorant. However, there are those for whom it is SO important to share EVERYTHING they are doing that they do

not consider those they leave out. So, Facebook is a double-edged sword, bringing both happy and unwelcome messages.

Margaret also included responsibility as a digital citizenship skill. She recalled a lesson in which she taught her students about reliable sources as “really getting at the feeling of being savvy online.” She recalled,

I usually use the Northwest Pacific Tree Octopus site with students. It is that one website where it looks like it’s absolutely legit, there’s videos, there’s this and it’s not legit. But there’s a moment . . . there’s always one kid that says, a tree octopus? I’m like, I love you, love you because it doesn’t make sense that there’s a tree octopus ’cause there’s not!

She described the student who questioned the website as “being savvy.” She also said many students were “caught up in the hype of it, they didn’t read, because in the text of that it said something about it being not necessarily true and in the Google search it talks about it being a hoax.” She further explained that often her students do not even read the content online: “I think they’re very pulled in by video, the very problem, they’re not going to read what is on a website.” Margaret felt that with the “TikTok generation” their ability to be savvy online is affected by their short attention spans:

You know you got 60 seconds, I want to see it I don’t want to read it, and I don’t want to, you know, have to put anything into it, I just want the information, and then they think that little nugget of information is all the information they need.

Margaret also described her experiences with online safety and that her students are very smart and savvy. She explained, “Students know when a teacher has not been caught up to speed about online safety issues of the past, and that they will try to slip things past.” She recalled a time during e-learning during the COVID-19 pandemic:

I felt like during the pandemic while students were using Zoom and Google Meet there was a lot with that which I felt was very open, and I'm not sure . . . I get how the district said teachers should not video-record the students, absolutely . . . FERPA, I'm with you, but then the students could open a Zoom room and it's like, are teachers not also responsible for what happens in that Zoom on our district portal even?

She expressed great concern:

I found that there was a girl who had emailed one of my boys to tell him that a kid he got in a fight with was in a Zoom room right now and she sent him the link. I'm like, so all of this stuff that we have to deal with in the classroom, making sure they don't bully, then becomes even more discreet and more secretive when you add digital media to it, so yeah, I sound like I'm like not a fan of the social media but I am, but it's dangerous without teaching what the right thing is.

Margaret articulated "having the flexibility of navigating different platforms, being able to troubleshoot and trying to find the answers to problems" as other important digital citizenship skills that required her to have established trust with her students to make responsible choices.

She said,

Flexibility and troubleshooting skills will be critical for this generation of kids to understand and be able to navigate different platforms, and kids need time to dig into different things that they can do with the technologies, hanging out, messing around, and geeking out with technology.

She elaborated that one of her biggest goals with students is getting them to be able to explain the functionality and rationale behind using a specific program or digital tool. She explained the thought process:

Okay, this is my problem or my project and to be able to have a cache of you know “I’ll use this!” instead of me, as the teacher saying “Make a Google slide deck”, but for the students to say, “I’ll make a Google slide deck!” I want my students to understand the tools that are at their disposal.

She vividly recalled a “perfect moment” in which a student was able to use a piece of technology in a unique way. She explained,

The others can see it, and they start emulating it, that’s not me saying, “Oh you should do this”, but I am available to say, “Have you thought about this this?” You know, like I give them a couple things to think about and help them out with it. We’re just never going to know everything that’s available out there, but the kiddos have a lot less of a wall than some of us who are older, to just figure it out.

She recalled another time during e-learning during the COVID-19 pandemic, when a student’s Chromebook went dead; the student was able to problem-solve and troubleshoot the issue. “The student was able to get on his phone on the app for Zoom and get into the Zoom meeting that way so he did not miss school for that day.” Margaret shared that ideally, students are learning skills from each other.

She also shared that students understanding their digital footprint was another essential component of digital citizenship. She recalled an activity she used in the classroom to help students understand the concept of the digital footprint:

We talk a lot, we actually Google their parents. We talk a lot about it and I let them Google me because I fly out there from that I’ve done a lot online, so I come up in multiple different ways. We talked about it’s kind of like branding, if you will, the fact that, first of all, that they have privacy, you know that there is FERPA.

Margaret is very proactive in her learning about digital citizenship and shares her own knowledge with her students. In her interview, she shared about her role as a member of a technology committee that examined apps for students to use for school. She used her newly gained knowledge with her students and explained about a digital footprint, “Look you guys, there are things that I didn’t even know these companies were gleaning about you from something that seems so benign.”

Margaret also mentioned fake news as another part of digital citizenship filled with a myriad of skills for students to learn. She shared a time when she looked at her phone and saw her voicemail and heard that her “car insurance is about to run out for the 50,000th time.” She knew not to pursue it. However, she knows to be skeptical and fact-check things; this is a skill she felt is vital for her students. While she felt her students understand that they need to be careful with their information, she explained, “I don’t think they realize all the other ways that their information can be gotten.” Students might not be aware “the cookies that are thrown to their computers and the fact that those cookies are then going to gather information for that company to try to make more money.” While she understood that companies need to make money, she was concerned that companies were “making profits off the backs of children.” Margaret teaches her students to be aware of all the ways their privacy can be comprised and to understand that a program like Roblox is never free, because it requires a download; that gives companies “a lot of access, but students don’t always think that through.”

### ***Margo***

Margo explained that part of becoming a responsible digital citizen involves recognizing that “sometimes how people conduct themselves online is not the true reflection of who they are, as a person.” She explained how easy it is for her students, who are 9 and 10 years old, to miss

the fact that “things are not always what they seem.” She elaborated that students also need to know that “not everyone has good intentions and on the Internet there’s a lot of scams and people trying to be pedophiles.” She said this is why it is so important for kids to know whom they are talking to, so they do not get into a serious situation. She shared a personal example of a time when she exercised caution online upon receiving a questionable email, which required her to use her skills and knowledge to exercise her responsibility as a digital citizen:

I have a personal account on Facebook that I use mostly to stay connected with old and new friends as well as family. One day, I got a friend request from my husband’s grandfather (whom I am already friends with on Facebook) as well as a message from him that said something really bizarre, and the message also included a link. Because the contents of the message were out of context of how I would typically interact with him, my guard immediately went up. I had a feeling this was a scam, especially because it included a link. Usually scammers include a link to try to get people to click on them so they can mess with your computer and steal information. Since I had a strong feeling that my grandfather-in-law’s account was hacked, I immediately deleted the friend request, blocked the person on Messenger, reported the suspicious account to Facebook, and then sent a text message to my husband’s family, including my grandfather-in-law, about what had happened. My mother-in-law, brother-in-law, and sister-in-law all responded back [that] they had the exact same thing happen to them. I wanted to make my grandfather-in-law aware of the situation so that he could take care of the situation on his end and even change his account password.

Margo also shared another important digital citizenship skill: “You need to have respect for others’ opinions, even when you disagree, you must be able to respectfully disagree.” She



gave an example during her interview that just having a conversation with someone in a video chat or text requires the skill to know how to be respectful and how to be a good listener. She said if someone disagrees with something, it is a skill to learn that it is okay to disagree, but “how you’re disagreeing with that person instead of you know, being rude and disrespectful or name-calling say, ‘oh well, thank you, you know, for your insight, however this is what I think.’”

She also explained other important skills including “learning to recognize when something is a scam and not sharing it, learning about your digital footprint, copyright, asking permission to share photos, even of your friends.” Margo also explained that copyright is a concern for her because it’s “so easy to Google an image and take it and which technically you’re not supposed to do that, it needs to be ones that are approved and are allowed to be shared.” She also said,

Sometimes kids do not always think about the fact that they need to ask their friend’s permission to post a picture on social media, and by not doing that, means you are now making that choice for them, whether or not that photo is shared.

She explained that to become a responsible digital citizen, “you need to know what private and personal information is and what type of information is not ok to share and with whom.” She also mentioned “cyberbullying, catfishing, and healthy usage.” Margo stated in her interview that after the past year teaching and being connected so much virtually, that at times she has said, “OK, we need to take a step away from technology, and you know just go in and do hands-on things.” Margo added that it was also important “to know when you need help and to seek assistance from a trusted adult, IT, or a support platform.” Margo clarified that seeking additional assistance may be necessary “if an issue became too big, or was very concerning.” She felt like her students did not always know when to seek help. She explained, “Students need to

decipher when to just like ignore it on their own, or when it's something that needs to be reported." She expressed concern, stating, "There's things that teachers or adults need to be made aware of, or even as adults things that we need to report to the police or even to the app or website themselves so they know what's going on."

Margo also shared several skills in her digital journal that were essential to becoming a responsible digital citizen. She identified the following essential digital citizenship skills in her digital journal:

Fact checking, finding reputable sources, as well as digital literacy, and understanding how and where to search for sources, how and where to find images that are okay to share, when to ask for help if someone or something has gone too far, checking an app, website, or social media platform for their terms and conditions to see if it is appropriate, as well as what information you are agreeing to when using it.

She explained that digital literacy was important for students to understand how to read the terms and conditions of a website, "because reading online is so much different from reading a textbook." She explained in her interview, "It's important to teach students that digital literacy skill to like read through everything and what to be cautious of and understanding when you need to ask your parents for permission." She also felt that students needed to have the skills and knowledge to safely search for reputable sources of information. She explained, "I can find things that aren't necessarily true, so being able to decipher is this true or is this not true? Where did this information come from? So fact checking, I guess, would be very important."

Margo elaborated further about online safety skills and digital citizenship. She recalled a time during remote learning during the COVID-19 pandemic when she experienced one of her students being unsafe online. She recalled,

One of my students typed his password into the chat box and shared it with the entire class, it wasn't just for me. I did not draw attention to it in front of the students because maybe some of them didn't realize it or just figured out oh, that's really random on YouTube, like, right, these kind of like gibberish things in the chat box, so I didn't call it out.

Margo explained how she handled the situation:

I did not want to embarrass that student in front of everyone. I did not want to draw attention to the fact it had happened in case the students were unsure what the student had typed into the chat box.

She discussed the situation privately with the student in a breakout room on Zoom to explain the importance of keeping passwords safe and private. She explained that the whole situation had caused her to panic. She felt like if this had happened at the junior high or high school level, then there could have been a greater risk to the student, as kids might be trying to login as the student to cause him harm. The situation prompted her to be more aware of her students' online safety habits and served as a reminder to her about the importance of teaching digital citizenship skills to students. She explained, "Teachers cannot assume students have already learned what one might consider basic online safety." She continued in her digital journal:

Also, because this situation arose, I knew that I needed to talk about basic computer and Internet safety with my students. I realized that I had assumed that sharing one's passwords with others outside of trusted adults (teachers and parents) was a no brainer and they must have heard this numerous times from other teachers prior to 4th grade. While the latter may have been true, clearly, it was worth repeating and having a conversation about.

She reflected further upon the password-sharing incident, recalling how atypical the start of the school year was due to the COVID-19 pandemic. Normally, she explained, she began the school year talking about digital citizenship using the content available on the Common Sense Media website, but since the school year began virtually, she focused more on getting students acclimated to the various digital platforms that would be used for instruction, such as Google Classroom and Zoom. Because of this trade-off, students were savvier in their understanding of digital platforms but less knowledgeable in areas of digital citizenship safety and social responsibility. However, considering the password-sharing incident, she started teaching minilessons on digital citizenship once again. Margo reiterated the importance of taking responsibility and recognizing when “you need help.” She shared that it was her responsibility as a teacher to ensure her students saw her as a trusted adult.

Margo is concerned about her students’ online safety. In her interview, she explained that she makes a concerted effort to acknowledge her students’ use of technology and social media as the basis for her instruction in digital citizenship. She promotes safety and socially responsible behaviors online based on mutual trust. She elaborated,

I include their typical use of technology as my examples when teaching digital citizenship in class to help them better understand what I am teaching about and relate to the material. I think the best way to help my students is to continue educating them about digital citizenship and all that it entails because like it or not, technology is here to stay, or at least for the foreseeable future. As an educator, I think it is important for students to be informed and to create an environment in my classroom in which students can feel comfortable coming to me with questions and concerns that arise while using technology.

Margo has had many conversations about online safety with her students over the years. She recalled students sharing comments with her about their use of video games, texting, and using social media. She explained with concern, “I usually make the comment that I hope they have their parents’ permission to use these different sites and that they are using them responsibly.” Margo created a video for her students as part of her creative synthesis process to emphasize digital citizenship skills relevant to her students. She used real-world examples to make her video realistic and relatable to her students, while reminding students although being online is a lot of fun, they still need to be cautious. She shared her digital story:

This is Camila. Camila is a student like you. She likes to play video games like Minecraft, Roblox, and Among Us. Camila likes to connect with her friends in TikTok, Snapchat, and text messages. Oh no! She had a problem when she was online. Somebody said something bad about her and posted her photo without her permission and someone asked Camila to share information online, but she isn’t sure she should share. Camila remembered what her teachers and her parents told her about being a good digital citizen when she is online. A good rule is to be respectful when online, ask permission before posting a picture; this includes pictures of your friends. Maintain your private information like your password and your birthday. Ask a trusted adult for help, like your teachers or parents. Now, have fun, and be careful!

**Figure 8.**

*Images From the Digital Video Margo Created for Her Students*



This is Camila, a relatable student who likes spending time online.



Camila, like other students, likes to play video games.



Camila, like other students, like to connect with her friends



Camila encounters a problem



Camila's reaction when someone posted without her permission, and said something bad about her online.



Camila remembers what her teachers and parents told her how understanding digital citizenship



Camila recalls the importance of being respectful online.



Camila recalls the importance of asking permission first before posting or sharing



Camila learns to keep her private information safe.



Camila remembers the importance of knowing when to ask a trusted adult for help.



Camila enjoys being online again, remembering about positive digital citizenship.

Margo shared that during this study, she was reminded of the importance of continuing to teach digital citizenship with her students year after year, on an ongoing basis. She concluded, I cannot take for granted that the teacher before me has done so. Also, teaching digital citizenship is something that should be done all year rather than just at the beginning. Students need regular reminders and dialogue about using technology responsibly. As adults, it is important to know how our students are using technology (such as for homework assignments, gaming, and social media, etc.) so that teachers can connect with students and understand what issues and scenarios they may face in their regular digital interactions. I have also been reminded that there are so many different components to digital citizenship, and as technology continues to evolve, I am sure more aspects will be discovered and emphasized.

### ***Samantha***

Samantha explained that to become a responsible digital citizen,

You need to know how to interact with others and represent yourself online. You need certain skills like knowing what information is safe to share about yourself and what information should remain private.

She shared a personal experience in her digital journal in which she recalled a time in her life in which she used her skills and knowledge to interact with others in a safe and responsible way. She recalled:

About 11 years ago, my best friend convinced me to join some online dating services with her because she did not want to do it alone. I was curious about the process, but also nervous about who I would meet online and whether or not they would be trustworthy. I was both safe and savvy online by creating a fake name for myself and including general

details like favorite TV shows, movies, and nothing specific like where I worked or places I used to live. During this time, I met Steve, my partner of 10 years. When he first reached out, I told him we could email, but I was not going to give him my phone number until I was comfortable. It was about a month before I agreed to meet him in person or even “friend” him on social media apps. I wanted to be absolutely certain I did not share too many details with him so that if things didn’t work out he could not really stalk me in person or online.

Online safety and privacy is important to Samantha and a topic she frequently addresses with her students. Her students often brought up the topic of hacking in discussions about online safety. She recalled one student in particular, who continuously fearfully expressed, “Someone’s going to hack my computer, someone’s going to hack me!” Sometimes Samantha questions if her students’ fears about hacking are exaggerated or if “students don’t fully understand what comprises hacking.” However, she admitted that she had been hearing more and more stories about cybersecurity and safety issues. too. She shared, “Some kids are walking around unnecessarily in fear, but they have a respectful understanding and appreciation for what they should be doing to keep themselves safe.” Many of Samantha’s students shared that their fears about hacking stemmed from their parents’ negative experiences. She recalled a few examples:

Parents may have experienced having their credit card numbers being stolen, or they clicked on a text sent to them and it ruined their phone, so students see and hear those scenarios and that really scares the crud out of them. They may have experiences from their parents, because a lot of them will tell me things like that that their parents have told them. I’m not sure if it’s the parents’ fears being transferred to the students and then it just gets out of control. So I think there’s a lot of potential factors there. And like I said it



used to kind of just be like, “oh that’s nonsense, it’s not going to happen to you, why would anyone target you?” But then you know, this day and age, you hear all sorts of stories so...

Furthermore, she said students also shared stories about their siblings taking usernames and passwords from each other:

I’ve had kids tell me like, “my older sister’s friend got mad at her, and she told the friend what the password was and when they had a fight, the friend logged in as her and then you know, wrote things on her Facebook page or whatever it was just not kind or appropriate.” I don’t know if that’s really considered hacking, but you know, impersonation for sure,

Although Samantha wanted to teach her students about online safety and how to protect themselves online, she often felt the task was better suited to someone savvier in cybersecurity, like a computer expert, who could talk to her students. She explained, “You know, basic things that maybe I don’t even know about how to keep themselves safe and protected, not just on a computer but on their phones that they love to carry around.” She explained that often her students shared their stories and experiences with online safety with her. She commented, “If they’re really upset about it, I’ll talk to them more about it after class.” She reminds her students to “keep their passwords safe, even with friends.” She also shared safety tips with students:

I’d just give the students tips on what they should do to keep their passwords safe. When I am helping them make a new password, I try to not look while they’re typing in their new password and stuff like that.

Despite her conversations with students about keeping passwords safe, she recalled,

They'll come to me later and they'll be like "I told my best friend my password, how do I change it?" And so I've sat down with a couple of students and showed them how they can change their passwords and their privacy settings on things. I try to help them, but like I said, I feel like I need to become better educated on cybersecurity. I probably need someone who really knows, like an actual tech person to come in, someone who knows about cybersecurity and can actually give us the facts.

She also said her students needed to understand about their digital footprint:

You need to understand that any content you create (words you post, pictures you share, videos you make and so on) or consume (websites you visit, videos you watch) creates a digital footprint, or in other words a trail of information about yourself. This digital footprint is nearly impossible to erase so it is important to know how you want to be seen today and in the future.

She also explained that understanding your digital footprint also involved skills, "like how to speak or interact with others online in a way that can be seen as positive and respectful. For example, no name-calling, writing in all caps, or swearing." I asked her about the skills needed to become a responsible digital citizen, and she shared ways that she teaches her students how to speak and interact respectfully with others online, reminding her students about representing their whole selves and that her students understand the impression they are making online. She also shared that she hopes that when her students are engaging with others online that they are aware of stranger danger and the fact that the person students believe they are communicating with may not be who they think. She shared,

Hopefully people are representing themselves accurately online, but you don't know, you could be talking to somebody older or younger than you and not realize it. It's a little

scary because there's so many AI bots out there, trying to collect information, and they can mimic human communication really well. So we have to be thinking about whether someone is trying to get information from us, and for what purpose they would want that information. Are they trying to find out what school you go to for some purpose of coming to school? Or maybe they are trying to find out information about your family for marketing purposes. Many websites want to gather information and kids will give it away because it's not obvious to them what the purpose is and that they would be marketing you.

Samantha reflected further upon the complexity of online interactions and added, "I feel like it's twofold, students have to think about themselves as consumers and creators, so I think teachers have to show students and have conversations about the fact that anybody can post anything to the Internet." She explained that her students needed to look critically at posts and videos and not just believe everything that someone creates is factual, void of bias or angle to it or some purpose. She said,

They really need to think about that. Because when they are creating their own content, even if it's comments or they're setting up a YouTube channel, which a lot of kids do more and more of, they have to think about their perspective on life, their experiences, and what kind of message they want to put out there.

Samantha acknowledged that having the ability to reflect on the content one has created involves its own set of unique skills. She elaborated,

So as creators, we do have to think about design, we also have to think about giving credit and not stealing content from other people, so we have to know about usage rights, and we don't necessarily need to have all the copyright details. I don't even know if I

understand all the copyright details because it feels like it changes. It's hard to stay on top of all of it. I do try and teach students simple ways to look for images and videos that they are in Creative Commons and that they are allowed to use.

Samantha strives to incorporate authentic digital citizenship skills in her instruction by drawing on her students' personal experiences and likes. "A lot of them have tablets and phones that they've taken pictures on or made short videos on and they like to post it or they might work on that with an older sibling." She also draws on empathy to help her students understand issues related to editing pictures or videos like copyright. She explained,

I talk with them, you know, like if you created something really cool and you put it out there and then later, you saw somebody else posted it on their page, but they didn't give you credit for it, how would you feel? I feel like more and more we're having interesting conversations like that.

She decided to have her students create a meme because this was something they seemed to enjoy, and she thought this would be an opportunity to teach a variety of skills. She recalled a particular lesson about memes in which she taught students how to find images that were legal to use under Creative Commons. The students copied the images and wrote a caption that they would share with others. She explained:

I told them, you know this is school and also, we want to be good digital citizens, so we want to keep it appropriate, we don't want anything too violent or explicit and something that might make other people uncomfortable, so that was a little tricky because there were certain things that kids thought was totally appropriate. My gut reaction at first was oh my, like why would you put that up there? There was one kid, in particular, he put up a

photo of someone who was like emaciated and had like hardly any teeth and it was super scary and gross to me.

Samantha told the student he could not share his meme, and he was hurt. She explained that she had a conversation with the student later and asked him why he chose that image. The student explained, “This is a YouTube star that I like to follow, I really liked them.” Samantha explained that she felt bad then about not letting him share. She elaborated,

I’m looking at it from my narrow frame of mind. It’s hard, when you stay positive and you want people to you know be responsible. Everyone’s going to have their own view of what that is appropriate and so to me, I thought it was too gross and not really appropriate to put out there, but to him, it was funny, and so it’s hard.

Samantha explained to me how she tries to connect with her students and use their interests and passions to help guide her instruction, but that sometimes it is challenging when her view of being safe, respectful, or responsible may be different from her students. She reflected on the situation and the conversation with the student: “We both walked away with a better understanding of each other.” She elaborated that a few years ago students were not really creating and putting content out there online, but now, more and more students have an interest in sharing their work online and that students need design skills and to consider how their content comes across to others. She explained,

I think a lot of times when I give them an assignment, even just doing a document or PowerPoint or something like that, we talk about design elements. I’ll usually talk about why something was not a good idea, such as putting words in all capital letters or changing the font so, you know, that it’s like a million different colors. We also look at

different websites together and go over those things as well, like how easy or difficult the website was to navigate and understand.

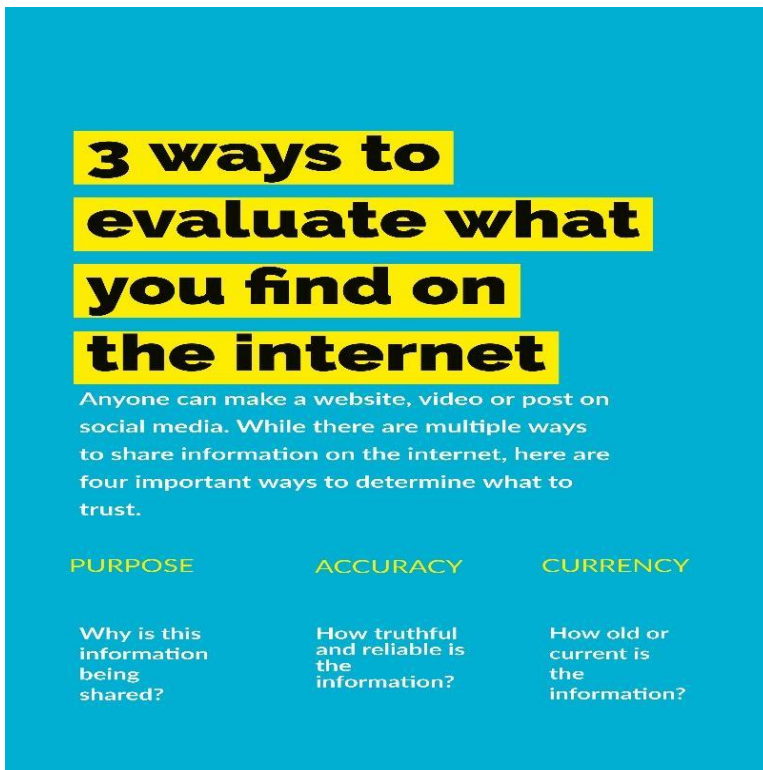
She noted other skills students needed to become responsible digital citizens in her digital journal:

You need to know how to evaluate websites, videos, and other content on the Internet so students can recognize facts from opinions and how a creator's purpose informs their choices, as well as how to use information in a way that gives credit to the original creator so that you are not stealing others' work and misrepresenting yourself.

Samantha created a social media post to explain the skills needed to critically evaluate information online (see Figure 9). She drew attention to purpose, currency, and accuracy.

**Figure 9.**

*Samantha's Social Media Post About Being a Critical Thinker and Evaluator of Content Online*



One of the biggest takeaways for Samantha, as part of this study, was that digital citizenship is “about more than just saying kind words when interacting with others online.” She explained, “It is also about understanding how to critically evaluate online content so that you do not spread misinformation, biased opinions and inaccurate data.”

### **Invariant Qualities, Horizon Clusters, or Themes**

I analyzed the data according to the delineated horizons of digital citizenship defined and essential skills and knowledge, as related to the subsidiary research questions. I analyzed the research participants’ verbatim statements and data from their digital journals, semistructured interviews, and creative synthesis products to determine the invariant qualities, which are the common themes that appear to be essential to understanding the nature of the experience (Moustakas, 1994). I explore the invariant qualities and themes below for each group of research participants.

#### **Invariant Qualities of Horizon One: Digital Citizenship Defined**

I arrived at the following invariant qualities after a thematic analysis of the administrator research participants’ data from their digital journals, semistructured interviews, and creative synthesis products: devices and accessories, avoiding cyberbullying, online safety, trusting who you are communicating with, knowing the functionality of technology, building healthy connections, showing empathy to others, keeping and recognizing a digital footprint.

I arrived at the following invariant qualities after a thematic analysis of the student research participants’ data from their digital journals, semistructured interviews, and creative synthesis products: finding reliable sources, thinking before doing, showing kindness to others, showing empathy to others, being a critical thinker, following copyright, avoiding strangers online, focusing on meaningful projects online, avoiding online scams, protecting private

information, being part of an online community, being cautious online, and seeking help from a trusted adult.

I arrived at the following invariant qualities after a thematic analysis of the teacher research participants' data from their digital journals, semistructured interviews, and creative synthesis products: accepting responsibility, consequences for lack of responsibility with technology, protecting private information, being aware of stranger danger, issues with cybersecurity, helping students recognize the impact of their digital footprint, media balance and self-regulation, recognizing and not sharing online scams, modeling appropriate behaviors for students, students' increased virtual connections, rapidly changing technologies, asking permission, disagreeing respectfully, and having positive interactions with others.

### **Invariant Qualities of Horizon Two: Essential Skills and Knowledge**

I arrived at the following invariant qualities after a thematic analysis of the administrator participants' data from their digital journals, semistructured interviews, and creative synthesis products: staying in social circles you know, avoiding cyberbullying, reporting inappropriate behavior, dangers of students' unrestricted online access, lack of parental support, lack of time, lack of prioritization of digital citizenship, lack of a clear definition of digital citizenship, lack of professional development for teachers, lack of collaborative efforts, lack of understanding the capabilities of technology, lack of understanding the functionality of technology, creating a community of learners, maintaining and starting new social networks and connections with others online, increased social interactions among students, using social media to bully, sending dangerous messages, lack of clear definition of online interactions outside of school hours, responsibility to others, protecting others, lack of support and guidance for teachers, teachers'



varying degrees of comfortability with technology, lack of understanding an online classroom community, and lack of consistency in skills instruction.

I arrived at the following invariant qualities after a thematic analysis of the student research participants' data from their digital journals, semistructured interviews, and creative synthesis products: showing kindness to others, showing empathy for others, ignoring mean behaviors online, reporting inappropriate behaviors, being an upstander, having an awareness of others online, finding trustworthy and reliable online sources, seeking help from a trusted adult, being cautious, thinking before doing, positive online interactions with friends, students' lack of ability to find trustworthy and reliable sources online, avoiding interactions with strangers online, avoiding online arguments, protecting private information, and finding trustworthy and reliable sources of information, applications, and games.

I arrived at the following invariant qualities after a thematic analysis of the teacher research participants' data from their digital journals, semistructured interviews, and creative synthesis products: responsibility to others, basic troubleshooting skills, teachers modeling and sharing their digital world with students, students sharing their digital world with teachers, using reliable sources ethically, developing critical thinkers, geeking out with technology, understanding the functionality of programs and digital tools, protecting yourself, teachers' lack of awareness of potential safety issues, being aware of one's digital footprint, respecting the rights of others, awareness of the privileges granted by technology, things are not always what they seem online, avoiding dangerous people online, avoiding online scams and not sharing them, reporting suspicious behavior, protecting private information, asking permission, respecting others' opinions, disagreeing respectfully, finding reliable sources, knowing when to seek help, knowing how to positively interact with others online, being cautious, stranger danger,

looking critically at online content, following copyright and usage rights, and engaging students with digital citizenship skills.

### **Individual Textural Descriptions of Horizon One: Digital Citizenship Defined**

I now provide the individual textural descriptions of the experiences of each research participant. The textural descriptions give the “what” of any given experience or phenomenon (Moustakas, 1994).

#### **Administrators**

For the full thematic analysis, please see Appendix E.

#### ***Philippe***

Philippe defined digital citizenship as being responsible for one’s devices and accessories. He felt that part of being a responsible digital citizen is showing responsibility in taking care of one’s device. He explained,

Students don’t understand the cost, and many times the kids aren’t paying anything for the technology that they’re provided and, in turn, they don’t respect it. Students don’t take care of their devices, which means it comes back damaged or there’s pieces lost.

There’s really no accountability for that.

Philippe also defined digital citizenship in terms of safety and the importance of avoiding cyberbullying. He explained, “Bullying is not something I tolerate. I have very little tolerance, or any, for bullying.” Philippe explained that he immediately addresses any issues of cyberbullying:

I think bullying has to be addressed immediately. I am very upfront and transparent with all of my kids and parents that anytime I get a report of a child being bullied, whether it’s through any platform or whatever, it is going to be addressed right away. There are ways of being caught and how that happens, so I think accountability, as a principal, is critical.

I contacted families and often had families come into school and talk about it. I had the evidence there and if from there it continued, I contacted the police. I encouraged the victim's family to file a report against the bully.

Another aspect of safety and digital citizenship concerns students surfing the Internet safely. He explained that part of being safe on the Internet is taking responsibility. Philippe explained,

Part of it is not being enticed to go into and search for things that are not appropriate. It's about being ethical and what it means and following through with that. I think we get caught up in all the negative things happening with technology, but you've got responsible kids out there that want to do good but, again, sometimes kids just want to fit in so they use the Internet irresponsibly or to search for things they should not.

Philippe also felt that another aspect of digital citizenship safety concerned trusting whom you are communicating with online. He explained, "It is hard for me to trust people and know that they aren't using my information." He specifically elaborated,

I do use social media to stay connected with family and friends. I feel safe using it. I have been able to reestablish friendships with college and high school friends. Facebook has also allowed me to reconnect and stay in contact with friends and family.

Philippe explained another aspect of digital citizenship is about understanding the functionality of technology. He said, "I just think kids are misguided in what technology is used for." He felt that students were missing so much of technology as they had not properly learned the purpose and functionality of all that technology has to offer, limiting their ability to become true digital citizens, only scratching the surface. He elaborated,

I don't think there's enough time spent with kids to really show them the functionality of technology and what it has to offer, and how when used appropriately and responsibly, it can really make some of their things easier in life.

Another part of understanding the functionality of technology helps students become digital citizens who fully recognize the benefits of technology. He shared, "My youngest son has no idea really about the benefits of different [programs] like PowerPoint or making spreadsheets or anything like that." Philippe also witnesses his school families missing out the benefits of technology as well. He explained, "I don't even know, I think a lot of our families don't even know the capabilities of what technology has to offer, they just know they can search something and find it." Philippe explained, "We assume students understand how to use technology responsibly and assume that they understand all the capabilities that it has to offer when used in the correct way."

### ***Lucile***

Lucile felt that digital citizenship is about responsibility, specifically in building healthy connections with others online. Lucile specified, "One of the biggest components of digital citizenship for me is building healthy connections and relationships." Lucile has experienced in her own personal life the benefits of connecting with others online. She explained,

The social connections I have been able to make are global and influential in both big and small ways. Over the past years, I have been able to keep in touch with friends and family who live both near and far, even across the globe. I can follow the adventures of former students, relatives, friends, and even people I don't know.

She also acknowledged the benefits of building healthy online connections for her son, who had limited face-to-face social opportunities during the COVID-19 pandemic. She explained,

I think about my son, who just turned 15, and was home by himself most of the time during the pandemic and how his connection to a digital community helped him stay mentally well, like that is how he connected with his friends and his family when he couldn't see them in person.

Lucile also felt that showing empathy to others is an important part of being a responsible digital citizen who engages with others. She stated, "There is a sense of critical thinking about your online interactions and the potential impact they may have on yourself and others." Additionally, "It's about empathy and respect, and drawing that parallel between in person and digital spaces."

Lucile also thought about extending views of digital citizenship to go beyond principles of online safety. She detailed,

Digital citizenship is broader than "don't share your name and password with people." I feel like people think of that part that, like, "don't share your private information," and that's very, very true, but keeping passwords safe, that's basic level. Students need to know how to create passwords that are not easily hacked. There is more to it than that.

Lucile felt that part of extending views of digital citizenship leads to recognizing one's digital footprint and the impact on one's digital life and safety. She shared that her students were using social media, they had online friends, and they were happy using a variety of platforms to interact with others, but that they might not fully grasp the concept of a digital footprint.

I think for our students a digital footprint is no longer something sort of separate; it is part of who they are. Their cell phones are part of who they are. Their online social media is part of who they are, even our younger kiddos as young as maybe third or fourth grade even use social media. Students need to know how to share enough of themselves to build a community, but not so much that they're not in that safety zone.

## **Students**

For the full thematic analysis, please see Appendix F.

### *Ava*

Ava defined digital citizenship in terms of being responsible by finding reliable sources online. Ava felt “this is important so you can do better on your homework because you know you are getting good information.” Also, “If you use reliable websites you are getting accurate information and you can trust it.” Ava explained that she had been learning about reliable sources “since kindergarten” but acknowledged that teachers help a lot by guiding students to the websites and places they should look. She expressed that when kids look on their own, “they often find things that are wrong or they don’t know how.” She also defined digital citizenship as thinking before doing online and exerting a certain level of caution before clicking on a link. She explained, “Always read carefully to make sure it’s a safe website. If it’s not then just don’t go there. If you don’t know how then you should ask a safe adult to help you.” Ava told me, “It’s important to think first because if you don’t you might say something you regret and then you can’t take it back.”

Ava also acknowledged another part of defining digital citizenship is showing kindness to others. Her message was clear: “Be kind in the world.” She explained that “kids need to know to just be nice on the Internet.” Ava felt a responsibility to lead by example, showing kindness to others even when others around her were not necessarily doing that. She stated, “Even if someone says something mean online or scams, you should stand up for yourself and others and be kind. Someone else might see you doing that and then they will do that.” She felt that showing kindness to others involved showing empathy to others, as “you never know because someone

could be having a bad day and that's why they are being mean. So just don't be mean back to them."

### *Eleanor*

Eleanor defined digital citizenship largely through responsibility in being able to find reliable sources online. Eleanor equated the ability to find reliable sources online as part of being a successful student and doing well on assignments. She explained,

If you're doing a book report on something and you are talking and your teacher explains that is definitely not what happened, or something like that . . . so you want to know if everything in your book report is actually true.

Eleanor felt another part of defining digital citizenship included being a critical thinker, which also was part of being able to find reliable sources online. She explained, "You have to ask yourself if the information makes sense and don't just get everything from one source." Eleanor also felt that another aspect of digital citizenship involved performing advanced searches, which she felt were helpful in finding reliable sources online. She outlined, "Google has an advanced search that helps you narrow your search. You can use that to help you find a more trustworthy source." Lastly, another aspect of being a responsible digital citizen involved following copyright laws. Eleanor explained, "I learned it's important to check to see if the photos I want to use online are legal to use."

Eleanor acknowledged part of being a digital citizen is being respectful by not arguing with others online. She shared, "This doesn't really happen to me online, but I know it happens a lot. Kids need to be aware of not getting into an argument with people or not saying hurtful or mean things." Eleanor thought instead of arguing unnecessarily with others online, "you could politely disagree with them or not say anything at all."

Eleanor also defined digital citizenship in terms of safety, by avoiding online strangers.

She shared,

Don't give your address, and phone number out to a random person. It is definitely being irresponsible giving like a phone number, an address, or even your real name to someone you don't know online. When I am interacting online some things that I like to be aware of is mainly who I am talking to. If I was playing a video game that lets people talk to each other and someone with a username that I don't recognize wants to talk with me I would log off because that person could be anybody.

Eleanor also explained that in her perspective focusing on meaningful projects online was part of becoming a responsible digital citizen. She explained, "I don't really use the Internet at home and at school I pretty much stick to the websites my teacher tells me are safe."

### ***Leon***

Leon defined digital citizenship through responsibility. He felt that avoiding online scams was part of digital citizenship. He explained,

There are scams in app stores like when you pay for it and then you give away your email address and payment to random people online sometimes it's a scam game. It says it's real but it's not and you get done out of the real game and money too.

Digital citizenship is also about protecting your private information. He shared,

Kids sometimes give away their email without thinking. I did it too . . . sometimes I gave away my email from when I was younger . . . then I got bombarded with junk mail . . . and it was weird and scary. They kept sending me messages. So now I am careful about what I do. I had to delete that email account.



Leon explained another part of being a digital citizen includes finding reliable online sources: “There is so much information out there, and a lot of it is bad so you need to find out what you can trust.” Leon enjoyed playing online games and being part of a digital community and he explained responsibility is an important part of being a digital citizen. First, he said, is showing kindness to others online. He explained, “I really do this a lot when I see someone being mean or bullying, I’ll like stand up for them.” Leon believed that being part of an online community comes with showing responsibility. He recalled,

You have to be responsible. As a matter of fact, if they are bullying then I will step in for them. In Roblox, this person bullied over and over to someone. They said “You look like a rat!” I responded, “No that’s mean, don’t say that.” Then they said I was a little kid and I should go away.

Leon elaborated further that safety was another important aspect of defining digital citizenship. He added that being a critical thinker is one way to stay safe online. He shared, “A lot of times, before, I just got really excited and went too fast. Then I ended up in trouble. Kids need to read carefully and ask a parent to help them if they don’t know.” Additionally, he felt that being cautious is another safety aspect of being a digital citizen. He recalled,

Sometimes it is really exciting when you are doing something. Like this time I didn’t see it said “Rooblox” instead of “Roblox,” it was a fake. I was excited to login and trade with someone that I didn’t think. The websites make it really easy to try and trick you. They make it look so real.

Lastly, Leon explained how seeking help from a trusted adult was another aspect of digital citizenship safety. He explained, “Teachers help give us safe sites to stick to and to learn from. If I don’t know what to do I’ll ask a teacher for help. At home, I ask my mom for help.”

## **Teachers**

For the full thematic analysis, please see Appendix G.

### ***Margaret***

Margaret defined digital citizenship as accepting responsibility with technology. She explained, “Just as we have responsibilities as a U.S. citizen, so do we also have responsibilities as a digital citizen.” She further explained the role of accepting responsibility in digital citizenship:

I think there are two facets to digital citizenship: the facet of accepting that you are a digital citizen and the facet of then acting on what that means. I think a lot of times with kids, but also with adults, there’s a nonacceptance of the fact that they have a responsibility with their technology and how they use it.

Margaret shared that many of her students expressed surprise when she shared information with them about accepting responsibility:

There is always surprise when I have a conversation with my kiddos with some of the things I say, for example, the recording of minors and disseminating recorded video of minors. You know, they’re like . . . what? I’m like no . . . I can’t put a video of you up on social media or anything like that without permission, and you can’t be doing that . . . you can’t video whoever you feel like. It’s like now that they know, do they accept that responsibility?

Margaret felt an obligation to teach her students about accepting responsibility. She elaborated, “We owe it to students to at least present things to them and then, if they still act inappropriately with digital media, that’s where they haven’t accepted their digital citizenship.” She added:

I'm of the mindset that I want to try to get students to do the right thing, like I don't want to punish by taking away their device because then they don't learn, you know? They just learn that they got caught.

Margaret added understanding the consequences for a lack of responsibility with technology was also part of digital citizenship. She recalled,

One fourth grader in particular had different computer assisted practice software that they go on. I watched him, one day, and he could not stay on one tab. He went from one tab and then opened up another tab and then he opened up another one and another one. I would try to redirect him, and it would just happen again, and it was always whatever he wanted to be on. So, then the extreme is the students lose their privileges, but then the weight is on the teacher then . . . like, I should just give them paper and pencil stuff to do, but if I'm worth my weight as a teacher, I have created digital things that are not easily transferable to paper [and] pencil.

Margaret explained that it was important to help students realize the consequences and dangers of not accepting responsibility with one's technology. She explained,

All of this stuff that we have to deal with in the classroom making sure they don't bully then becomes even more discreet and more secretive when you add digital media to it, so yeah, I sound like I'm like not a fan of the social media but I am, but it's dangerous without teaching what the right thing is.

Margaret also felt that managing and protecting one's digital footprint is another important aspect of defining digital citizenship. She shared, "I tell students there are things that I didn't even know that companies are gleaning about you from something that seems so benign."

Lastly, Margaret felt that redefining digital citizenship to protect others is important. She shared, “I don’t think parents really understand all of the apps that are out there, and all of the different ways, all the different temptations for their kid to not be a good digital citizen.” Additionally, she felt she plays an instrumental part in redefining digital citizenship, adapting to new technologies:

We have to keep on top of these things, like when I came into teaching, someone could say they weren’t good with technology or that they don’t use technology. We don’t have that luxury anymore to just say I’m not good with it, I don’t use it. We’re giving kids really expensive pieces of equipment and giving them the world at their fingertips and we’ve gotta teach them how to do that well.

Lastly, digital citizenship is about safety, specifically having an awareness of stranger danger. Margaret shared, “It’s very easy for students to turn their devices on and then not get sufficient amount of sleep or have run-ins with people who are on things later at night.” Margaret shared that understanding issues with cybersecurity as another component of defining digital citizenship. For example, she shared:

If anything requires you to download something, you are giving them a lot of access, but kids don’t always, they don’t always think that through. And websites that have a lot of pop-up ads and such . . . I think that it’s interesting to watch students when they get blocked. Like they’re just testing the limits, you know, but they won’t always have something that blocks, so they really need to understand.

### ***Margo***

Margo defined digital citizenship in terms of responsibility. She felt part of that responsibility lies in managing and protecting one’s digital footprint. She shared,

Technology is just so rapidly changing and who knows what it will even look like in 5 years, let alone when my students are adults, so it's important for kids to understand their digital footprint. It's just so hard for them to grasp right now.

Responsibility also comes in having media balance and self-regulation and knowing how to balance digital and real life. Margo helped her students regulate their media use by modeling the thought process from the lens of her students:

I've played this game for this many hours, like, that's a skill too, like knowing when you know what I played, even if my parent lets me play all day long, like having that balance and, like, ready to go, okay, I should probably do something else now.

Margo believed another aspect of responsibility is recognizing and not sharing online scams. She shared, "If students discover something is not true, they need to know about not sharing that information or saying, well, I found this, however, I discovered that this part was not true and explaining why." She felt a certain level of responsibility as teacher to help her students avoid online scams. Margo felt that modeling appropriate behaviors for students is crucial so students learn firsthand what to do in certain online situations. She illustrated her point:

Even as an adult, reading the terms and conditions is very overwhelming because it's written in very legal jargon, so kind of breaking it down, helping students with words that you'll find throughout or words or phrases that you need to be careful about. It's important to teach students that digital literacy skill to, like, look through, and ask, like, what are you looking for? What should you be cautious of? What's okay? What do you ask your parents for permission for?

Margo also felt that a lot of the way in which she defined digital citizenship had been reimagined in the last year during the COVID-19 pandemic due to students' increased virtual connections,

largely due to remote learning. She shared, “After this year with being connected so much virtually it was kind of like, okay, we need to take a step away from technology, and you know, just go in and do hands-on things, which I agree with.” She also explained that sometimes digital citizenship can be difficult to define due to rapidly changing and evolving technologies. Margo noted the importance of helping students keep up to date with new technologies and helping them anticipate and problem-solve potential issues. She explained,

As adults, it is important to know how our students are now using technology for homework assignments, gaming, and social media so that we can connect with them and understand what issues and scenarios they may face in their regular digital interactions. There are so many different components to digital citizenship and as technology continues to evolve, I am sure more aspects will be discovered and emphasized.

Safety is another part of defining digital citizenship, according to Margo. She felt that students need to be aware of asking permission before posting something online; “a good rule is to ask permission before posting a picture, and this includes pictures of your friends.” She added,

Over the years I have heard students make comments about their use of technology such as playing video or computer games, texting, and using social media, and I usually make the comment that I hope they have their parents’ permission to use these different sites and that they are using them responsibly and safely.

Margo also felt that protecting private information is another crucial part of digital citizenship. She explained, “You need to know how to check an app, website, or social media platform for their terms and conditions to see if it is appropriate as well as what information you are agreeing to when using it.”

Margo felt digital citizenship is comprised of being respectful and disagreeing respectfully online. She shared,

If you disagree, then learning to disagree is important. It's okay to disagree, but how you're disagreeing with that person instead of, you know, being rude and disrespectful and name-calling, say "Oh well, thank you, you know, for your insight, however, this is what I think, or I would I disagree with you because," and then give a reason. Learning how to disagree in a respectful way is important.

### *Samantha*

Samantha defined digital citizenship through being respectful and having positive interactions with others online. She teaches students that

you want to think about how someone else would feel reading what you wrote. If you're going to say something online to someone else you want to make sure that you're not writing in all caps so you're not looking like you're shouting at somebody. You want to keep your comments positive for the most part, I mean you can give people suggestions, but you don't want to say things like "that sucks" or "I can't believe you made this!"

That's something people would have a hard time interpreting because they're not seeing your face, you're not having a live conversation with them, it's asynchronous so you know you want to really think about the words that you use.

Samantha also defined digital citizenship by being responsible, especially by protecting private information. She expressed a fear many of her students have shared:

The idea that someone could harm them through the computer by gathering information, I think that really scares the crud out of them, and they may have experiences from their parents, because a lot of them will tell me things their parents have told them like their

credit cards numbers have been stolen or they clicked on a text that was sent to them, and it ruins their phone or whatever.

Another aspect of responsibility is helping students recognize the impact of their digital footprint, which is “nearly impossible to erase so it is important to know how you want to be seen today and in the future.” Samantha believed part of helping her students to recognize the impact of their digital footprint means

you need to understand that any content you create, words you post, pictures you share, videos you make and so on or consume such as websites you visit, videos you watch all create a digital footprint, or in other words a trail of information about yourself.

Samantha also felt part of responsible digital citizenship means evaluating content online. She explained,

Being a good digital citizen is not just about saying kind words when interacting with others in an online environment. It is also about understanding how to critically evaluate online content so that you do not spread misinformation, biased opinions and inaccurate data.

### **Individual Textural Descriptions of Horizon Two: Essential Skills and Knowledge**

I provide textural descriptions of each research participant’s descriptions of the essential skills and knowledge needed to become a responsible digital citizen. From the thematic analysis, I arrive at the textural description of what the K–5 administrators, students, and teachers experienced through thematic analysis.



## **Administrators**

### ***Philippe***

Philippe identified digital citizenship safety skills, highlighting the importance of staying within familiar social circles and avoiding online interactions with strangers. Philippe said he stays within familiar online social circles in his own personal life, using Facebook and Messenger to stay in contact with friends and family; he also believed it is important for students to avoid online interactions with strangers as well. He explained,

What I have found in the past is that students aren't aware of the importance of communicating among people they know. They use social media to make inappropriate connections or share other people's information that is not their own. The same is true for families. They obtain information from social media that is incorrect and believe it. This causes emotions to rise and phone calls to school with the misinformation.

Philippe also considered avoiding cyberbullying to be an essential digital citizenship skill. He explained that he has no tolerance for bullying and recognized the increased complexity of bullying due to the rapid rate in which technology can be used to bully and intimidate, both at home and school, through personal cell phones or district devices. Philippe elaborated, "Students think that because they deleted the conversation, it went away and they were not going to get caught." He explained how he sees his role as an administrator dealing with cyberbullying:

Part of my responsibility is making parents aware of what was going on with the cyberbullying and then being very transparent by explaining the consequences. If the student does continue to bully, then my next step is to notify the authorities that this is going on. I would tell the victim's family that if they get one more communication in the

form of bullying, that they should reach out and file a report and then sometimes it would end.

Philippe also noted that as an administrator, he has seen examples of students being good role models and practicing good digital citizenship by reporting inappropriate behaviors and bullying online. Another safety skill involves having knowledge about the dangers of students' unrestricted online access. He shared, "Students go in and search for things that are not appropriate or they use social media to bully." Philippe said,

My eyes are really opened to what kids know about technology and unfortunately the bad things they know how to use it for and how inappropriately they use it. The other thing I've become more aware of is how much access kids have; they have unsupervised access outside of the home and some parents just are oblivious to it. Even if some parents are aware, they are too busy with their own life or they just don't care.

He shared a specific incident from a classroom in which students found themselves in a dangerous online situation:

I had students that in one classroom that had figured out a way to bypass district security. They had actually started chatting with two gentlemen who were in another country. The chat was very inappropriate and of sexual nature and it was happening within the classroom.

Philippe felt that knowing how to report inappropriate behavior to a trusted adult, teacher, or administrator was an essential digital citizenship skill and could greatly help keep students safe by alerting adults to students being bullied or engaged in other potentially unsafe situations online. He shared that "some students report other students' improper use of technology and are not afraid to do that and alerting the teacher to what is going on." He recalled,

A student quietly reported that they saw one of their classmates logging in and searching, and you know kids get savvy, they know . . . they could have their browser window open and they know when somebody is around they can open and pop up what they should be working on. Their classmate saw them doing that, so they just made the teacher aware, so the teacher became more observant and then, in turn, discovered that the student was right. The student who reported it was never discovered because he just quietly alerted the teacher and she became more present.

Philippe also recognized several roadblocks to incorporating essential digital citizenship skills and knowledge. First, he said, there is a lack of parental support. He explained,

It's unfortunate, but a lot of times the parents say things like, "My child would never do that." Then, it's like, I have proof right here and the parents still deny it. I tell them you can choose to believe your child or you can choose to see what I'm presenting to you, but my reality is I was seeing your child doing it.

Additionally, Philippe believed there is a lack of time and that "teachers already have so much on their plate." He also felt there is a lack of a clear definition of digital citizenship:

It has been evident through conversations with teachers throughout the past few years that they are not aware of what digital citizenship is and what it entails. I think we need to start from the beginning to provide the understanding and skills that teachers should be instilling in their students while they are using technology in the classroom and at home.

Philippe also believed there is a lack of consistency in digital citizenship skills instruction for students. He elaborated,

I think there needs to be a media specialist or a teacher at the elementary age who specifically has that job to introduce skills to each of the kids like starting the program at

kindergarten and it just continues to grow so every year you build off what they learned the year before. For example, students may have done a small PowerPoint presentation in second grade, but next in third grade, they did it again, but they built off it and they continued to grow the skills off of that and keep going.

Philippe also shared that students need to build on their digital literacy skills to find information digitally, and take information to create their own digital presentations, as well as being able to communicate or share information with others.”

Philippe felt that collaborative efforts between staff are needed to successfully teach digital citizenship skills to students. He recalled the benefits of collaboration:

Skill building also goes back to the collaboration with the classroom teacher, you know, so the classroom teacher knows how to support students in the classroom as well. I think that collaboration and that working together with the media specialist who focuses on specific skills is very important.

Philippe also believed there is a lack of digital citizenship professional development for teachers. He sees teachers and students receiving devices with little thought put into how to use them. He shared, “I believe that teachers should be provided with professional development on digital citizenship. Teachers need to learn the habits that go with using technology in a safe and respectful way.” He felt that without proper professional development prioritizing digital citizenship, there will continue to be a lack of understanding the capabilities of technology, resulting in teachers using technology in a limited way. He explained,

Teachers play an online game and or use technology to entertain or say they’re going to use technology to practice a skill. Well, you know, I think again that’s not the only thing that technology has to offer. I think it really comes down to the teacher taking the time to

understand the capabilities technology offers and using it responsibly, not just as a reward event.

He recalled the benefits of experiencing the full capabilities of technology:

I have teachers who use Google Classroom. It is a great platform for students to utilize and provide feedback to one another and comment on each other's work and collaborate to create something. I think there's the true capabilities of technology. Some teachers use it and it works out. It's a great way for kids to collaborate, especially if teachers and students weren't able to meet face to face, they could still work together in a group and collaborate to create an end product. It's about teachers thinking creatively about how they can utilize different platforms, or different pieces within Google.

Similarly, Philippe felt there is also a lack of understanding the functionality of technology: "I think many of our kids have better digital citizenship than their parents. For many, like me, it just wasn't a part of my education and growing up. Many parents just don't know all that technology can be used for." He thought of his own child: "My youngest son, to him, other than gaming he has no desire to use technology, other than games on his phone or whatever, because nobody ever taught him at a younger age about the functionality of technology."

Philippe felt that without explicit instruction, many students and teachers fail to recognize the capabilities and functionality of technology. Philippe concluded that there is a lack of prioritization of digital citizenship skills. He explained,

My biggest takeaway is that digital citizenship is not prioritized in our schools. We provide our students with technology, but do not teach them how to use it responsibly. We assume they understand how to use technology responsibly and assume that they understand all the capabilities that it has to offer when used in the correct way.

## *Lucile*

Lucile felt that it is essential to know the positive aspects of online interactions, such as creating a community of learners. Lucile shared, “I think about how I am contributing positively to my digital group community, and I think about the potential for relationship building.” She said students have an awareness that there is a community, but the sense of community is something that needs to be taught and learned. She explained how she has talked about digital responsibility with “students as young as maybe third or fourth grade, and I know younger students even use social media and then students even younger that have digital friends through games like Minecraft or whatever platform.” Lucile recognized that not everybody has access to the same level of digital community and this is a part of the large inequities in our society and school systems. Furthermore, she believed teachers also need to think about how to create an online community and the responsibility that comes with being part of an online community, just as in a classroom community. She explained,

Before teachers can create an online classroom community, they need to ask how that translates over into a digital community. For example, even our kindergarteners are putting up things on Seesaw, and they need an understanding that other people can see what you post.

Lucile also viewed maintaining and starting new social networks and connections with others online as another positive aspect of online interactions. She recalled a time in which she made a new friend through a social media forum that she followed. It started with a request to edit a story. Lucile explained, “I enjoyed a previous story she had published, so I connected with her to see if she still needed help. This connection sparked a friendship that has lasted for several years.”

Lucile also recognized the increased social interactions among students online made possible through participation in digital communities. She explained how students interacted with digital groups through applications such as Google Classroom or Seesaw especially during the COVID-19 pandemic. “We saw just how much they are interacting with one another. Third and fourth graders for sure are connected that way, especially during the pandemic their experiences and their capacity expanded because it had to.”

Additionally, Lucile felt that it is essential to have knowledge about the negative aspects of online interactions, recognizing the dangers social media can present when social media is used in a negative way to bully others. She recalled a cyberbullying experience:

A really prominent example stands out, there were three fifth grade girls who were really very sophisticated in their targeting of another student through social media to bully and target and attack another student and making it look like it was somebody else. It went so far as a student creating fake accounts with another student’s name. It was very complex and took me a while to figure out. I ended up involving my school resource officer. She also explained that understanding negative aspects of online interactions also involves understanding the consequences of sending dangerous messages like a student telling another student, “you should kill yourself.” Lucile also expressed how dangerous messages are seated in something much psychologically deeper, and need to be addressed immediately as the emotional damage from dangerous messages spreads quickly. She said, “Parents were texting me and showing me where the message came from and screenshotting it.” She went in to the fifth grade class and educated the whole class about the harm dangerous messages can do. She expressed, “A lot of the kids had no idea what was going on . . . but trying to explain, at a fifth grade level, the impact of seeing those things said about you. It’s very, very powerful and damaging.” She

added that she felt a responsibility to not only handle current safety issues, but that it was also important to help prepare students for junior high and high school “where it gets a lot more intense.” Lucile emphasized how quickly social media accounts can become really dangerous, “like telling another child to kill themselves is really dangerous, because sometimes they do it.” She explained, “It really opened my eyes to the lengths that kids will go to try and sort of feel their own bad feelings by hurting others.” Lucile concluded that it is especially important for her to get involved in issues, even when the issues happen outside of school because the issues disrupt the learning environment. “I can step in and see what’s happening and I can call my resource officer in to have a talk about digital citizenship, responsibility, and cyberbullying.”

Lucile also thought about digital citizenship in terms of responsibility skills. She believed in responsibility to others and that teachers should help students learn specific skills like how to have empathy and respect for others in an online community, and to help students “build an awareness that even though you’re not physically in the same space online, you’re in a community, and there are certain expectations.”

Lucile also believed that it is essential to have knowledge about how to protect others online. She shared that she seeks her son’s consent before posting or sharing his content as it is part of protecting his identity and she must honor and respect that “as part of his story or his narrative or his ability to exist within a digital community. He may not want it posted because either it’s embarrassing or he doesn’t want people to see it.”

However, she also felt there are limits to what goes beyond protecting students. She explained,

I had some kids that would have no idea that certain apps even existed because I had kids whose parents didn’t even want them to have a phone. I gave my son a phone when he



was in fifth grade because I felt like it's better to learn about it when you're a little younger. I don't believe in sheltering kids.

Lucile recognized reporting inappropriate behaviors as an essential skill for students. She said, "I would like to think that by teaching students that if you see something potentially harmful to report it to somebody so that somebody doesn't get hurt." She believed she had a responsibility to teach kids to be upstanders. She recalled how a serious cyberbullying incident at her school escalated because other students failed to report the cyberbullying:

There was this instance of a student who was bullying online, and she was deeply hurt. I think it would have come to the surface sooner and so it could have stopped sooner if others maybe had like the responsibility to report. Also, understanding that even if the thing that they wrote is not about you, if it's about someone else just doing nothing is not okay. . . . That was a big piece of it, like, there were kids who knew and didn't say anything. The two or three that were really involved in the really negative sort of incident, there were three or four other kids that knew because they saw it and didn't say anything.

Lucile also acknowledged several roadblocks to teaching essential digital citizenship skills and knowledge to students. First is a lack of digital citizenship support and guidance for teachers. She explained how elementary school classroom teachers are not necessarily thinking about digital citizenship. She believed teachers needed support to think more explicitly about digital citizenship, especially now that students have one to one devices and teachers really need to think about responsibility. "I think it's going to take some guidance for teachers to fully know that what they're teaching is digital citizenship."

Next, she acknowledged the varying degrees of teachers' comfort with technology. Some teachers, she felt, are afraid of technology; others have some level of comfort but are more focused on the actual technology itself, leaving little thought to digital citizenship. She reflected on the varying degrees of comfortability she witnessed during the COVID-19 pandemic, and concluded that some teachers will embrace the digital components of COVID-19 pandemic teaching. Some teachers felt, "That was the most awesome thing ever, I can't wait to use it in my in-person instruction." She also felt some teachers would end up in the middle, and others would put a wall up and say "I don't want anything else to do with technology for a while." She specifically recalled one teacher who spent hours taping lessons and sending things home, and then got very upset when the parents didn't do the work. Lucile expressed, "It created this cycle, where no matter what I did to help or support her as her administrator, she couldn't get herself out of that, so for her that was trauma that will live in her for a while."

She recalled the trauma that many teachers experienced:

There was the trauma of having to switch teachers' whole mode of teaching. The experience of having to switch their whole mode of teaching from in person with physical books and papers and pencils to digital. It was exhilarating for some teachers, it was frustrating for other teachers, and for other teachers, it was traumatic, like it was just their whole world got turned upside down.

Lucile also felt that there is a lack of consistency in digital citizenship skills instruction, making it difficult to achieve a common understanding of digital citizenship among all staff. She explained,

As an administrator, you have to address the willingness of teachers to incorporate digital citizenship. You have to be thinking about where it fits into the curriculum, thinking how

teachers will work with the tech teacher or library media specialist to make sure everyone is giving consistent messaging.

She noted that there is a lack of collaborative efforts to teach digital citizenship skills and often the responsibility of teaching digital citizenship skills is presumably the unspoken responsibility of the technology teacher. She explained how prior to the COVID-19 pandemic there had been a mindset that digital citizenship skills are someone else's problem, "Oh, the IMC teacher, the tech teacher, that's their job to teach students how to search and so when they get to me they should know how to search!" Lucile's concern is that digital citizenship is a life skill, "not a skill you get in two tech periods."

Lucile added:

There should be this collective sense of responsibility at a grade level or at a building level that includes area teachers, it includes my art teacher, PE teacher, my tech teacher, and includes my paraprofessionals [paraprofessionals]. We all need to be collectively responsible. I think this varies greatly amongst schools.

She felt another roadblock is that there is a lack of a clear definition of digital citizenship skills. She explained the differences in teachers' views as some teachers just think of digital citizenship as "don't tell anybody your password or where you live." She thought other teachers view digital citizenship as the students' responsibility, like to know how to log in to Google Classroom. She thought some other teachers have a greater understanding of digital citizenship, but needed time and space to "go out and talk about that and know what that might look like, or what the potential is for digital citizenship, I don't think it's going away because the tech is here, and the connection is here." Lucile acknowledged the timeliness of digital citizenship as "everybody is connected on their devices in ways that even 5 years ago weren't happening."

## **Students**

### *Ava*

Ava believed that students need to know about being respectful online and part of that is showing kindness to others. Ava liked to lead by example, treating people with kindness, the way in which she would want to be treated. She shared a few examples of showing kindness: “A friend of mine got scammed in an online game once so I gave her a really good pet in the game to show her I was sorry that happened.” Another time at school, “a classmate shared online that she was having a really rough day so I told them I felt bad for them and that everything would be okay and to have a great day!” Ava believed strongly that the online community should be a supportive and kind place for kids and said, “Even if someone is being mean to you online, be kind to them, you never know why they are having a bad day.”

Also, Ava said students need to know how to have empathy for others and this involves thinking not just of yourself but others in the online community. She added, “When I am online, I always try and think how I would feel if someone said something mean. It feels bad. I wouldn’t want anyone else to feel that way, so I always try and be kind.” She recalled,

There is a game I play online and I have gotten scammed on it. I saw someone else who was playing the game falling for the same scam and I tried to warn them about it so it didn’t happen to them.

Although Ava placed the utmost importance on showing kindness and having empathy for others, she also recognized that there is a certain level of responsibility needed as not everyone is kind online. She shared that ignoring mean behaviors online is sometimes necessary, and that it is best to walk away from the mean behaviors instead of engaging in them. She

explained, “If someone is being mean online, I would just walk away. You don’t have to deal with that stuff. There are mean people online, but you have to just ignore them.”

Ava believed that just as in the real world, the online world requires students to have an awareness of others online, understanding that not everyone has good intentions, but regardless, it is still important to maintain what you believe is right. She explained,

You want to be aware of your classmates and your teacher and listen to them. You also want to be aware that there are mean people out there on the Internet but you need to just ignore them and stick to what you know is right.

Ava also discussed another aspect of digital citizenship responsibility, and that is knowing how to find trustworthy and reliable sources online. “It is very much important to always know if the website you are using is safe and reliable. You look at multiple websites to see if the information checks out and is true.” She recalled a classroom biography research project:

I was doing a research project about a famous person and I needed some sources for the project. I Googled it and found a website and it said she had died, even though she did not. I have learned since kindergarten about reliable sources and how you can’t always believe everything you read.

Safety is also another thing kids need to know about especially if they encounter mean behaviors that cannot just be ignored. Ava said in this instance, kids need to know how to report unsafe behaviors, including knowing who they can trust. She explained, “If you see someone being unsafe, you should report them online and block them. I always tell a trusted adult too.” She also identified seeking help from a trusted adult as something kids need to know how to do as part of reporting unsafe behaviors and signing up for apps or downloading games. She advised,

I would say you should always ask a safe adult to help you when you have a problem online or like when you are downloading apps. There is a lot to read in a privacy policy so ask a trusted adult for help so you know you are being as safe as you can.

Students also need to know about being cautious online and think first before acting. As a general safety rule of being cautious, Ava explained,

if someone told me to go to a website like if they sent me a link to a website, I just wouldn't go because it could be anything. You want to always think before you say, do or write something. If you are typing something on the Internet you should probably think before you post it.

She explained that looking for reliable and trustworthy sources online also warranted caution: "Be careful of what you read online because it might not be true and you could fall for it. You could spread bad news or upset someone because you shared something that was wrong. You have to be careful."

Ava believed students her age also need to stay in known social circles online. She recalled a positive online interaction during the COVID-19 pandemic when she couldn't see her friends face to face and she used Zoom to visit. She explained, however, that she really wouldn't do something like that if someone wasn't her friend in real life. "My friends from real life, we used Zoom during the pandemic when we couldn't see each other. We played games and talked and I remember everyone just being really nice to each other."

### *Eleanor*

Eleanor firmly believed that students have a lack of ability in finding trustworthy and reliable sources online, and that students need to develop this skill. She expressed frustration in finding reliable sources online can be so overwhelming and requires the guidance of a teacher. "I

would ask a teacher or a librarian if I got stuck and needed help finding reliable websites.” She recalled a research project in which a student in her class was unaware of the fact that he had gathered unreliable information:

We were doing a research project on Native Americans and another kid was doing the same tribe as me. He had a fact in there that was totally different than what I had written. It turned out that one of his resources was fake. He had no clue that it was fake.

Eleanor also believed students her age need to know how to avoid online interactions with strangers and that it is not safe to communicate with strangers online. “I use an app that lets me talk to my friends. I can text them and do video chat too.” She warned of the potential dangers of communicating with online strangers: “It is important to be responsible online because you could get bullied very harshly or kidnapped or something.”

Additionally, Eleanor felt that students also need to know how to avoid online arguments even with friends. She explained that learning how to respectfully disagree is an important skill for kids to learn. She elaborated:

If you were talking to someone online, you wouldn’t argue with them, or to put it simply, be mean to them. You could say, “I do not agree with you, but that is okay” or “we can just agree to disagree.”

Lastly, Eleanor explained that students need to know how to protect their private information. “Kids need to know how to make passwords or usernames that aren’t easy to do, like don’t use the same one for every single thing.” She also felt that following other safety tips like avoiding online strangers can also help kids protect their private information. She explained, “Don’t give your address, phone number, or even like your real name to a random person. That’s definitely being irresponsible.”

## *Leon*

Leon shared that kids need to know about avoiding interactions with strangers online. He stated, “When I’m online I always want to know who I’m talking to because that person could be anyone and it might not be safe.” Leon identified protecting private information as another digital citizenship skill that students should know about. He felt that if kids avoid interactions with strangers online, they are also helping to protect their private information too. He urged caution, however, as it is easy to make a mistake and give out information without even realizing it. He explained:

Even I have fallen for this before. On my phone it says there is a virus on your phone and to clean it out. So I did, thinking I was protecting myself and my phone, but then it turned out to be a way scammers were just trying to get my information. Another time, when I was younger I gave out my email for something I shouldn’t have and then I got bombarded with junk mail and I got hacked. It was scary and weird. I had to delete the email because it wouldn’t stop.

Leon also identified finding trustworthy and reliable sources of information, applications, and games as an essential digital citizenship skill for kids. He shared an example from a time when he accidentally logged in to a fake game website:

I learned fake websites tend to look like a real website, they don’t want to get sued for copyright, so they might add or take away a letter. Like for example Roblox, I once clicked on a Rooblox. They make you think it’s the real thing, you don’t even care, so you login and don’t even think about it. They do that to give your information away to other people, and they login to your account and change your password when you logout.



They trade everything in the game to their main account so it like transfers it. You can get too excited to check but you should see if it is trustworthy.

He shared another example from a school research project:

We did a research report on climate at school. It helps me when a teacher gives us the websites to look at and shows us how to search right. I know I might go to the wrong site if they did not do that for me.

Leon explained that being cautious is a helpful skill for students that can help them in a variety of ways online like in protecting their private information and finding reliable sources.

He shared,

So I was on the iTunes store app looking for a new game to download. This one app said it was \$3.00 and then it charged \$26.00! There were no refunds either so I was stuck.

Also, the game was nothing like how it said it was going to be. Now I know I need to be careful. They make it look so real. You have to know what you're doing and be careful.

Like an example is Funko Pops, they cost about \$10.00. I was so excited to get one that I bought it online and I really overpaid and it cost me like \$100.00 and it wasn't really even the right thing.

Leon also identified seeking help from a trusted adult as another essential digital citizenship skill. He says kids need to know that they can get help, and they should know who they trust. Leon explained,

I ask my mom to help me download things. You should always try and ask your mom to help you so you don't get in trouble or give away your information. If you had a problem with your iPad or something, just go to your parents and tell them what happened and they'll help and just connect you back.

Leon also felt that kids need to know how to show kindness to others online, especially when they are part of a digital community. He said, “When others are kind, it makes me want to be a part of that online community and when people aren’t kind it is hurtful.” Also, he said, “I know if my online community isn’t kind I don’t want to really be on there much. If your parents see that your online community isn’t kind they probably won’t want you on there either.” Leon had positive memories of times when he was playing an online game and his friends lifted his spirits by showing kindness and encouraging him: “You can do it they told me!”

In addition to showing kindness to others, Leon felt that kids also need to know about showing empathy to others as well. Leon explains that kids need to be aware of how things might make kids feel, and that “you have to think about not just yourself.” He detailed,

As a matter a fact if someone is bullying online then I will step in for them. In Roblox, this person bullied, they said to someone “you look like a rat” I responded “No that’s mean don’t say that.” I felt bad for the person, they were upset by it and they kept arguing. Then the bully told me I was a little kid and to go away. I said, “Ok, whatever.” When you’re in an online community you don’t just think about yourself but you think about other people too.

## **Teachers**

### ***Margaret***

Margaret acknowledged responsibility to others as an essential part of digital citizenship skills and knowledge and believed teachers and parents should share the responsibility. She explained the role of teachers:

It can't be the responsibility of just one grade level teacher to teach digital citizenship skills, it just needs to keep on going, whatever your content is, you need to make sure you incorporate some sort of responsible digital citizenship with students.

She also explained how parents also need to take responsibility. "I would very much enjoy parental partnership because like with screen time, parents presume their child is doing one thing, but they're really still on a screen gaming or social media."

Margaret also felt that basic troubleshooting skills are vital to digital citizenship. "It's important for students to be able to troubleshoot, being able to try to find answers to problems." She recalled a time during remote learning when a student was able to use his troubleshooting skills to participate in class over Zoom when his Chromebook was dead. The student was able to problem solve, download, and use the Zoom app. Margaret shared, "I think that that's going to be critical for this generation of kiddos that there are so many platforms and so many different ways to use things."

Margaret also said that teachers need to know about modeling and sharing their digital world with students and to use modeling and sharing to teach digital citizenship skills and habits to students. She explained one way in which she does this:

I am also a talker with kids about what they see. My screen and my projection devices are on almost all day, I don't turn that thing off, and so they see a lot of my world up there and they'll ask questions and they're full of suggestions for me like "Oh you should do this, you should group your tabs together like this." I actually listen to them, I stop, and say OK, show me what you mean and then I'll do it in front of the class so we can all learn it.

Just as she felt sharing her digital world with students is important and “it’s very interesting hearing their knowledge,” Margaret also felt that there is benefit in having students sharing their digital world with teachers, giving teachers a glimpse into students’ worlds, by strengthening and building relationships. Although Margaret is not that immersed in video game culture, she said “some teachers get really into that and that’s how they stay on top of what kids are doing.” Margaret liked hearing what the kids are talking about:

I like to get a little nosy. I also get to pull in my sons too, I get to say, “My sons were playing in this and my sons were doing this,” and then they tell me all they know about Xbox or whatever. It becomes a shared knowledge.

Another skill important to Margaret was using reliable sources ethically. She felt that students struggle with digging deeper into content and students tend to accept information at its face value. She explained how the TikTok generation of students have short attention spans and rely on visuals. “They don’t want to read it, they don’t want to have to put anything into it, they just want the information and then they think that that little nugget of information is all the information that they need.” Margaret feels “It’s almost like you can’t separate it from just basic good research skills, in English Language Arts. Like how do you look up information for something?” She constantly tells her students that anyone can create a website, and can say whatever they want, but that does not mean it’s accurate. She gave an example, “I could say the sun revolves around the earth, and if that’s there you can quote me, but I have nothing to back it up but my website.” Margaret expressed that her students want to take everything at face value and they really should not.

She recalled another time when a student gathered an image without regard to ethical use:

One young lady in fourth grade was doing a PowerPoint and I asked her, “Where did you get that image?” and she said, “oh I just got it off the Internet.” It was about indigenous Native Americans and she said “It just looked like an Indian” and I’m like, where to even begin? First of all, we don’t just copy [and] paste everything. Second of all, let’s unpack the whole “she looked like an Indian” thing.

Margaret talked to the student’s teacher and explained, “We kind of have a responsibility to teach students not to just take things off the Internet, not to just copy and paste off the Internet without giving credit, and he did not care.” She expressed, “You know, like some teachers just want students to make a PowerPoint and it’s when we have them compile things like that there are layers of responsibility that are ours to make sure we cover.” Ultimately, Margaret felt a sense of responsibility to teach students about responsible ethical use, and “Whether or not the kiddos do it or not you can’t control, but you can at least put it out there for them.”

Margaret also felt that developing critical thinkers is an important digital citizenship skill to benefit students. She shared that it is often a fine line between being critical, being cynical, and mistrusting everything. She explained how she uses Nearpod lessons to teach students about the credibility of information, “like how to look at something and know right off the bat it’s not legit.” She explained other skills she teaches her students to look for in a news article, “we look at the URL; if it looks good, we look at the logo, we click on the author.” Additionally, she shared, “We use All Sides to see what a news article looks like from all sides; the middle, the right, the left as far as media outlets are concerned.”

Margaret shared that part of becoming a critical thinker involves being skeptical when needed:

It's important for students to know . . . to be skeptical . . . to look at a website and think hmmm . . . and know the step to fact-check things. That's just a big thing to me. You have to [be] a smart consumer, like to be able to look at something and just know it's a scam . . . like when I look at my voicemail and it says my car insurance is about to run out for the 50 thousandth time I know not to pursue that. Like fact-checking things.

Margaret also felt that students need time to develop their technology skills just by "geeking out with technology." She thought that when students are able to "geek out" together, and they have things that they can contribute, it makes them want to be more responsible. She expressed, "Hopefully we can allow kids some almost like digital maker time to really dig into the different things that they can do with technologies." However, she acknowledged, "in order for us to give students time to do that, we have to be able to trust that they're going to be responsible, like it just goes it all goes hand in hand."

Additionally, Margaret felt that students need to know about and build skills in understanding the functionality of programs and digital tools. She said,

My biggest goal with the kiddos is them being able to say okay, this is my problem or my project and to be able to have a cache of like "I'll use this!" and not for me to say, "Make a Google Slide Deck," but for them to say, "I think I'll make a Google Slide Deck." I want them to understand the tools that are at their disposal.

Margaret also felt it is important for students to learn skills to use technology in a unique way. However, she noticed a difference in technology skill sets between kids who use tech at home and those who do not. She explained how teachers assume students all know how to use technology. "I assume digital nativeness . . . and like no, they're not all going to pick this up and go with it, but then on the flip side, I see amazing things and their ingenuity with tech." She

explained her perfect moment, “when a kiddo uses a piece of technology in a unique way, and the other kids see it and they start emulating it.”

She recalled a specific time when a student used technology in a unique way:

When I taught IT, I allowed students to utilize whatever digital presentation mechanisms they wished. When we did photovoice projects, some utilized their own phone’s camera and the editing applications while others used their laptops and the editing software available with them. At times, this could also become a deterrent to innovative thought. For example, once one person created a slide deck, many others felt that should be their means of expression, despite our discussion of many options for creation.

Margaret felt another important digital citizenship skill is knowing how to protect yourself and that you can’t necessarily rely on others doing the right thing or being protected by a website or app. She explained how her own son, who has like six or seven public Instagram profiles, gets trolled by kids. She explained, “Kids will like start up an account on Insta and call it something with his name in it just to irritate him and then they comment on his live.” She expressed frustration in the fact that it goes unchecked, “It’s being used by kids to hide behind an anonymity; like an anonymity to be mean.” Margaret expressed how she wants to know what is going on with her sons and her students, “I love to learn about different things that could be used for my kids and my classroom, also I’m all over social media. I’m on Twitter, I’m learning a lot on TikTok. But then there’s the privacy issues, you’ve got to look through that stuff.”

She felt that students need to protect themselves as they do not have a full grasp on all the ways in which their privacy can be compromised. She felt students are at “a good point with being careful with their sensitive information, but I don’t think kids really understand all the other ways their information can be gotten.” She gave an example, “Like cookies in general, that

are thrown to their computer going to gather information for that company to try to make more money.” Margaret is a part of her school district’s app committee and brings her knowledge into the classroom. She tells her students, “Look you guys, there are things that I didn’t even know these companies were gleaning about you from something that seems so benign, you know?”

Margaret also expressed that teachers lack awareness of potential safety issues. She said,

We as teachers have got to be aware. I’ve heard way too many people say, “Well, I can’t just be watching their screens,” and it’s like if you have them on a screen in your classroom, you have to in some way make sure they know you are watching because they’re kids. You wouldn’t let your 2-year-old walk out in the parking lot of Wal-Mart without holding their hand, it’s the same thing here.

Margaret also felt that being aware of one’s digital footprint is another important digital citizenship skill for students. She expressed to her students the sheer speed with which things can get out of control online and that students need to think about what they are doing online, “and if it’s not something, you know, fantastic and it’s not going to away, that’s awesome . . . but if it’s something not fantastic, then that’s not awesome.”

Margaret also believed that respecting others online is another essential digital citizenship skill that needs to be explicitly taught to students. She felt her students are very much used to posting whatever they want on social media and that conversations with them about respect is important. She recalled a conversation with a student about respectful online communication:

We were doing Flipgrid introductions. They were supposed to comment on someone else’s introduction, and one introduction was particularly bad. The young gentleman who responded to it, he was really upset because I deleted his response, and he and I talked, and even when we talked, I don’t think he realized that he had overstepped what was



acceptable commenting. He would, he would just rip into this kid like this, saying “This doesn’t make any sense!” Like he could have had his own little radio show! I was like, that is not what this assignment was about.

Lastly, Margaret felt it is important for digital citizens to know and have an awareness of the privileges granted by technology as part of understanding the full potential and capability of the digital world. She wanted her students to understand the privileges associated with having a technology device, and how that’s a part of digital citizenship too; this is part of being a responsible digital citizen. She reflected, “We could Zoom, do Flipgrids, we had a pandemic and could still do school! That’s a huge privilege and part of our school district’s digital media and vision that every kid can participate in something like that.”

### ***Margo***

Margo stated that things are not always what they seem online, and that often “how people conduct themselves online is not the true reflection of who they are, as a person.” Margo explained how someone’s online persona can differ from who they are in real life:

You have more time to reflect almost and sometimes that emotional connection is taken out of it because you’re not in the same room. It’s a little bit more emotional when we’re able to see each other, and I can kind of read your face. If we were just communicating via email or in a chat or different platform of just like typing back and forth, sometimes it takes the emotion out and people can get maybe sometimes a little impatient, or sometimes they kind of play off like their life is this beautiful amazing thing only because they are showing you what they want to show you. They can hide what they don’t want you to see.

Margo also shared that you have to know about avoiding dangerous people online. She explained:

Not everyone has good intentions on the Internet. Some very serious situations can arise if you're not careful. People, like pedophiles, could try to lure you into a not-so-great situation. You have to be very aware of who you are communicating with online.

In addition to avoiding dangerous people online, Margo also believed it is important to know about avoiding online scams and not sharing them. It is a skill to "recognize if something is a scam or if it's real, and then, if it is a scam, recognizing to not pass that along." She recalled a time when she received a questionable message:

Because the contents of the message were out of context of how I would typically interact with this person, my guard immediately went up. I had a feeling this was a scam, especially because it included a link. Usually, scammers include a link to try to get people to click on them so they can mess with your computer and steal your information. She believed knowing some key things to look for, like links that ask for your information, or other catfishing, or messages that sound out of character for someone, can help keep you safer.

Margo explained that if someone does fall for an online scam or encounter stranger danger, reporting suspicious behavior is another important digital citizenship skill to have. She stated, "Students need to know when to ask for help if someone or something has gone too far."

Margo shared the steps she took when she encountered a suspicious message in her inbox:

I immediately deleted the spam friend request, blocked the person on Messenger, reported the suspicious account to Facebook, and then sent a text message to my

husband's family, including my grandfather-in-law, about what had happened so they could change their password.

Margo felt that protecting private information is another important digital citizenship skill. During remote learning during the COVID-19 pandemic, she encountered a situation in which a student

shared his password in the Zoom chat because other kids were sharing their Roblox usernames. I think the student got confused and thought he should share his district password. The student saw other kids sharing information and just thought "I'll share too." But that was the wrong thing to do.

The situation quickly prompted Margo to reteach the importance of protecting private information and helping students to understand and know when to share online and when to keep something private. She explained to her students, "Your teacher, your parents, and you as the student are the only ones that should know your password. Beyond that it's not a great idea." She felt it is also important for students to "know what information is okay to share and what information you shouldn't share. Like obviously I'm not going to share my phone number or my address with a complete stranger." She compared that example with something that would be safe to share: "I might email you my address or phone number if we have that established relationship and that's okay, because I know I know you, but I'm not going to send you my password even though we're friends." She felt students need guidance in understanding the difference between the two situations in which sharing private information might occur. She also explained, "You need to know how to check an app, website, or social media platform for their terms and conditions."

Margo found that as her students are sharing content online, such as posting photos, they are often unaware of the fact that they need to ask permission before posting something about someone else. She felt asking permission is something important to know about, but not always something that students think through. “Students need to know even if it’s your friend and you’re going to post a picture on social media, you technically need to ask for their permission.”

Margo explained that respecting others’ opinions is another worthwhile essential digital citizenship skill, and one that requires explicit instruction, as it is easy to turn a disagreement into a flame war or online argument. She taught her students, “While we may not agree with others online, we can at least try to understand why they have come to have that opinion. I think there is value in that, especially in today’s society.”

In addition to respecting others’ opinions online, Margo felt that respectfully disagreeing with someone online is another essential skill. She taught her students, “You have to be a good listener.” She explained,

Engaging in debates online is usually unsuccessful because both parties typically approach the situation believing what they have to say is correct and are unwilling to change their opinion. Hence, why for my own sake, or my students’, [I] take a moment to think and reflect about why this person may have that opinion based on their own experiences and continue on with life.

Margo shared that students need to know about being aware of one’s digital footprint, although younger students struggle to grasp the concept that something might affect their digital footprint in the future. She reflected,

I think about my students’ digital footprint and I think that’s really hard right now, because it’s such an abstract concept because they are so young, being in fourth grade, 9

and 10 years old, they don't necessarily realize that what they can do on the Internet, right now, can affect their life later on.

Another skill Margo selected as essential is knowing how to find reliable sources online.

She specified,

Students need to know how to do a search and know what reliable resources to look for.

They also need to know about fact checking. Students need an understanding of how and where to search for sources. This includes digital literacy and knowing how to read the information online to find what you need.

Lastly, another skill Margo identified is following copyright. She explained,

Students need to know about copyright with pictures. Especially because it's so easy to just Google an image and take it, which technically you're not supposed to do, that it needs to be ones that are approved and are allowed to be shared unless you're going to credit them appropriately.

### ***Samantha***

Samantha felt that students need to know how to interact positively with others online. She shared, "Students need to know how to 'speak' or interact with others online in a way that can be seen as positive and respectful. This means no name-calling, writing in all caps, or swearing." Samantha also felt that students should be cautious when they are online and think about what they are doing. She explained how many kids and adults "have no concept that just because you make something shiny and pretty doesn't mean that it's accurate, it doesn't mean that there isn't an ulterior motive to it and you should be cautious." Samantha does not want kids to distrust necessarily everything on the Internet, but she does want them to think critically and exercise caution.

She also explained that part of being cautious involves protecting one's private information online and not falling for online scams, which could lead to hacking of private information. She shared some examples from her experiences as a library media specialist:

One thing that comes up a lot is hacking, and when we talk about being safe online kids are always talking about how someone's going to hack their computer or someone's going to hack them. I don't know that they always understand what that term means, and I don't even know if I 100% understand what that means. I know that we have like 86% [of our students eligible for] free and reduced lunch, so we have a lot of poverty, so our families and our kids have very little. So the idea that someone could, you know, harm them through the computer by gathering information, I think really scares the crud out of them.

She also felt that many times her students were easily influenced by their parents' experiences:

A lot of kids tell me stories that their parents tell them. I don't know if their parents really believe it or if their parents have had experiences where their credit card numbers have been stolen or they clicked on a text that was sent to them and it ruined their phone.

Samantha also felt that knowing about stranger danger can help kids to protect their private information and stay safe online too. She explained that being cautious can help kids to avoid potentially unsafe situations. Samantha believed it was important to talk to kids about stranger danger and to help students realize that they cannot always trust online communications are all on the up and up. Samantha shared, "Hopefully people are representing themselves accurately online, but you don't know and you could be talking to somebody a little bit older, or even a little bit younger than you and not realize it." She elaborated, "It's a little scary because there's so many AI bots out there trying to collect information and they can mimic human

communication really well.” Samantha concluded that her students need to be cautious online and think about whether someone is trying to get information from them.

Samantha also identified understanding one’s digital footprint as another important digital citizenship skill. She says kids and adults alike should be thinking about how their actions and words come across to others online and should recognize the permanence of their choices. She shared an example of how her partner gets very upset when products don’t work properly anymore. “He’ll be upset with some computer program and he’ll go ranting on Twitter, and I tell him to just think about how that represents you when you are only taking to these public platforms to complain.” She explained, “You’re not representing your whole self, you know? But that’s the impression you are making.”

She stressed the importance of a digital footprint to her students:

You need to understand that any content you create, words you post, pictures you share, or videos you make and or consume like websites you visit, videos you watch, all create a digital footprint, or in other words a trail of information about yourself. This digital footprint is nearly impossible to erase so it’s important to know how you want to be seen today and in the future.

Additionally, Samantha explained that it is necessary to look critically at online content, being cautious not to just take everything at face value. “I do try and show them websites to get them to think about some of the information that’s being shared and whether or not it’s accurate and how its presented.” Samantha teaches her students to evaluate online sources and websites and “look at the design too.” She helps them think, “Was it easy to navigate? Was it easy to understand?” She explained how she used the Common Sense website with her students to help her students learn to critically evaluate online content:

They'll have little excerpts and examples, and so I will read it aloud and I'll ask what students thinking of this person who posted this online. Then the kids will give me feedback about what their impression is of this fictional kid and I say okay, you know, thinking about that when you are posting things online, what's it going to say about you? Samantha felt kids need to understand and really think how to look at information critically and "not just believe that anything that somebody posts or any video that somebody creates is factual or doesn't have some sort of bias or angle to it." She also modeled skills for students to help them think about how design affects online content. She explained, "as a class, we fix a really badly designed example together, and then we'll talk about why was it not a good idea to put words in all caps or change the font so it's like a million colors." Samantha felt her students could then apply design principles when evaluating web content.

Additionally, Samantha identified the importance of understanding copyright and usage rights. She taught her students about giving credit and not stealing content from other people. She admitted copyright is a complex topic, "I don't even know if I understand all the copyright details because it feels like it changes. It's hard to stay on top of all of it." Samantha found herself having more and more conversations with her students about copyright, and she looks for simple ways to teach to look for images and videos that they are allowed as part of Creative Commons. "I tell students if you created something really cool and you put it out there and then later you saw somebody else posted it on their page but they didn't give you credit for it, how would you feel?"

Samantha believed that it is challenging to engage students with digital citizenship skills, although she felt it is important to teach digital citizenship skills. She explained,



I want them to understand that they need to be safe and don't want anything horrible happening to them, and you don't want them to make poor decisions, especially outside of school. But, I feel like the kids only have a short tolerance for it, you know, we could talk about it for a week or two and then at a certain point, their brains want to shut off or they start to groan and moan.

Samantha explained that due to students' short tolerance for digital citizenship lessons, "I do feel like I have to take a break from the topic, and we have to focus on other things, and then go back to it." Samantha explained that it's hard to make a lot of digital citizenship lessons exciting. She is constantly looking for ways to make it fun, because digital citizenship is not necessarily a fun topic. She elaborated that digital citizenship "is a serious topic and it's hard to think of projects that are necessarily going to strike the right tone and are going to be fun enough to keep them engaged and communicate to them the seriousness of it."

### **Individual Structural Descriptions of Horizon One and Horizon Two**

The structural descriptions in phenomenology are essentially the "how" of an experience (Moustakas, 1994). I provide individual structural descriptions of how each administrator, student, and teacher research participant defined digital citizenship and the essential skills and knowledge to become a responsible digital citizen. I use the process of imaginative variation to arrive at the structural textures resulting in essential structures of the phenomenon.

#### **Administrators**

##### ***Philippe***

The structures that permeate Philippe's definition of digital citizenship arose from his own administrative experiences in deploying devices to students, only to discover that often students did not respect their devices and accessories, either losing the devices or returning them

to school damaged. He explained, “Responsibility comes in knowing that there is an accountability factor for when someone doesn’t take care of a device, and there is a consequence for that.” Philippe’s frustrating experiences with students’ lack of responsibility and accountability caused him to feel students could never truly become responsible digital citizens if they had little respect to care for their devices and accessories. The lack of accountability meant that students viewed their devices and accessories more like replaceable toys, as opposed to something of financial and educational value.

Additionally, Philippe’s own personal experiences with his sons have also greatly shaped how he views digital citizenship, viewing his youngest son’s lack of interest and desire to engage in technology as an outcome of never receiving explicit instruction in the functionality and capability of technology. Instead, his youngest son limits his mobile phone use to texting or playing games. Philippe felt this is very much a missed opportunity for his son. He also explained that his oldest son did not really see the value of technology until he reached college and took specialized classes in finance and was then introduced to specialty software and became interested in the opportunities afforded to him through technology. Philippe also recalled how his sons struggled with efficiency in completing academic tasks, largely due to a lack of proper keyboarding skills instruction. “I think that it really begins with our kids.” He explained further,

Students should know the software and all the capabilities of it, so they can gather information or whatever you’re looking for or use the tools offered through different platforms, so you know how to use those to organize and write or collect data for future use or for your own personal use.

Philippe felt students need to “get back to the basics” and learn about software, hardware, and various technology platforms in a sequential skill-based manner to grasp the true capabilities of

all technology has to offer and “how it can make your life easier.” Philippe felt students, like his son, will miss what it means to be a digital citizen if they do not understand all the ways in which it can benefit their lives, both personally and academically. Philippe pointed out, “We assume students understand how to use technology responsibly and assume that they understand all the capabilities that it has to offer when used in the correct way.”

Philippe also prioritized online safety in his personal life and as an administrator. He has “very little, if any tolerance, for cyberbullying.” The way in which he deals with issues of cyberbullying within school with students is largely based on the vast prevalence of cyberbullying he sees daily and his desire to protect the vulnerable victims. It is also a testament to his own life experiences with bullying. He shared,

My strong feelings about bullying are a result of my own experience with being bullied growing up. I was a victim of verbal and physical bullying throughout elementary, junior high, and high school. I don’t want any child to experience the trauma that I went through. Being an administrator of a K–5 building, I addressed the bully, victim, and the bystanders. It was really important for me to provide the victim and bystanders the tools and strategies to stand up to and stop the bully. When a student was bullying others, I spent time with them identifying the “why” behind it. What were they getting out of it, and helping them find other ways to fill the void instead of bullying.

Philippe’s experiences dealing with cyberbullying issues also have influenced how he experiences the challenges of navigating the complexities of cyberbullying through social media. Cyberbullying often occurs after school hours, yet students feel the effects during the school day, making it a school issue that he must address immediately. The lack of parental support in his school also has an effect on how he deals with cyberbullying. Many parents deny their child’s

behavior, causing increased difficulty for resolving cyberbullying issues that carry over into the school.

### *Lucile*

The structures that form Lucile's perceptions of digital citizenship are based on her own engagement with social media and online community building and how she views her responsibility and role as a member of digital communities, as well as her experiences with her own 15-year-old son, who participates in online communities as well. Lucile stated, "One of the biggest components of digital citizenship for me is building healthy connections and relationships in order to expand our understanding and empathy for others." Lucile experienced healthy connections and relationships through connecting with friends, family, and people she has never met in real life. These relationships have greatly influenced her life in "global and significant ways." She acknowledged the "potential for bullying and relationship building" but firmly believed in the power of connecting with others. She shared how her son, who spent a lot of time by himself a lot during the COVID-19 pandemic, was able to "stay mentally well" through his connection to a digital community. He was able to connect with his friends and family when he could not see them in person.

She also recalled how her experience of digital citizenship has evolved over time. She grew up without having the Internet or digital communities, and she recalled being afraid when others shared content or photos of her son, but now she recognizes the benefits of digital community and that sharing his photos is just "part of his story or his narrative or his ability to exist within a digital community." She also recognizes how someone's digital footprint "is no longer something sort of separate, it's part of who they are; their cell phones are part of who they are." Lucile has embraced digital connections with others, developing close and meaningful

friendships with people she “has never met in real life and likely never will.” This is also how she approaches digital citizenship with her son: “I don’t believe in sheltering kids. I gave my son a phone in fifth grade because I felt like it’s better to learn about it when you’re a little younger.” She acknowledged that other parents might feel differently and do not allow their children to have a phone. However, she recalled a significant incident of cyberbullying at her school in which many kids did not even know about an app that was being used to bully and target a specific student, because the students did not use social media or a phone. Lucile concluded that although the cyberbullying would not have been prevented, “I think that it would have fixed it had the other kids known.” The cyberbullying was not reported because many students were unaware of the apps being used to bully and the dangers that could arise because of misuse.

## **Students**

### *Ava*

Ava understood digital citizenship largely through her participation in various online communities, mostly gaming communities. Ava has had some negative experiences of “being scammed” online, causing her to be more cautious online and think through things before acting or clicking on things that are sent to her. For example, she told me about a time when she got a virus and lost all her storage after downloading an unsafe app. Another time, someone who sent her a link for a spoof Roblox account tricked her, compromising her account. Interestingly, the way in which Ava reacted to negative situations in online communities such as Roblox has also prompted her to make a concerted effort to have a positive attitude, to be nice to others, and show kindness and empathy for others, making the online world “a happy and safe place for kids to be.” She admirably shared that it makes her feel good when kids treat each other kindly online and that seeing kids do that inspires her to be kind; on the other hand, when she sees kids not

treating each other kindly, she feels compelled to spread kindness to make up for other kids' mean behaviors. Ava shared with me that her mother has inspired her to show kindness and be nice to others. She happily stated, "My mom has inspired me to be a great digital citizen! She is so nice and is a nice person overall. I want to be a citizen just like her!"

Another structure of Ava's digital citizenship relates to her school research projects, for which she needs to be able to find reliable sources. Ava explained that either for school research projects, or her own personal use, like in downloading a game or app, that there is a lot of content out there that is not trustworthy, and she has been learning "since kindergarten" about reliable sources.

### ***Eleanor***

Eleanor experienced digital citizenship through reserving Internet use mostly for meaningful projects and avoiding potentially unsafe conversations with strangers. She explained, "I think the Internet is just kind of stupid and why would you want to watch people bully each other when you could read a book? When I am interacting online some things that I like to be aware of is mainly who I am talking to. If someone with a username that I don't recognize wants to talk with me I would log off because that person could be anybody."

Eleanor experienced digital citizenship through meaningful projects online and focused on being safe and responsible online, avoiding "weird websites"—her name for websites that contain unreliable or untrustworthy information.

Eleanor's experiences and frustrations with finding trustworthy and reliable sources prompted her to write *Eleanor's Story* as part of her creative synthesis. She tells the story of a student who relied on one unreliable website for a school research project. She then shares her misinformation with the class and is embarrassed to find out she has it all wrong, as she is

laughed at by her classmates. The teacher in the story uses this opportunity to teach the class about reliable online sources. How Eleanor represents herself in the story shows the level of importance Eleanor places on having the skills and knowledge to find reliable sources and do well on meaningful projects. Through her digital story, she expressed her desire to know that the information she finds and presents is true and her frustration in not being able to find trustworthy and reliable sources. She felt that kids need guidance and instruction in how to find reliable sources, and she “doesn’t have a way to figure that out.” She mostly relied on a teacher’s help to direct her to search engines and reliable websites, but often those did not give her the results she needed. Overall, she felt that she had not received adequate instruction in “how to figure out if the source, or website actually has good information or not.”

### ***Leon***

The structures of Leon’s experiences with digital citizenship largely stem from his participation in online communities, mostly through video game platforms, such as Roblox. Digital citizenship is synonymous with online community in Leon’s perspective, and his experiences with digital citizenship reflect his belief that he and others should be safe, respectful, and responsible within the online community. Leon has had several negative experiences in his online community, but he has maintained a positive outlook. In fact, despite falling victim to several online scams and witnessing online trolls saying mean things to him and to others, Leon has taken the initiative to stick up for others and help make the online community a kind place. He shared, “As a matter of fact if someone is bullying online then I will step in for them.” Leon felt an obligation and responsibility to make online communities kind places. He shared that “if an online community wasn’t kind I wouldn’t want to be on it.” He wants the online community to be a welcoming place where kids can be happy and safe. Some of his negative experiences

online have caused him to exercise more caution, but he admitted that sometimes he gets tricked and falls for scams. He explained,

When I was younger, I gave out my email for something I shouldn't have and then I got bombarded with junk mail and I got hacked. It was scary and weird. I had to delete the email because it wouldn't stop.

However, despite negative experiences online, Leon maintains a positive outlook, grounded in the concept of karma, something his mother taught him about at a young age, and the concept is interwoven through the fabric of Leon's life. With great emotion he shared a mantra his mom taught him: "Karma means if you do one thing to one person maybe something may happen to you and that can be positive or negative." Leon nodded his head in understanding as he quietly spoke, "It helps me be a better and kinder person."

The structures of digital citizenship for Leon are also rooted in his acknowledgment of the need to know how to find reliable sources, games, and applications. Leon has had several experiences in which he downloaded unsafe games and apps, causing damage to his device and even causing him to lose money. Another aspect of how he thinks about reliable sources occurs at school when doing research. Leon explained that the researching experience can be daunting and he relies on a teacher's guidance to avoid falling for fake websites.

## **Teachers**

### ***Margaret***

The structures of how Margaret experiences digital citizenship are formed through her own intense passion, interest, background, and expertise in technology and keeping current with both her students and her own son's interests. "We're giving kids really expensive pieces of equipment and giving them the world at their fingertips and we've gotta teach them how to do



that well.” Margaret has her ISTE certification, and she explained, “A lot of my thoughts on digital citizenship morphed there, as there’s just an entire world of what that means. What it means now is how are you a global citizen?” She also acquired her first masters’ degree in IT, and she also serves on her school district’s app committee, where she learns about and stays informed with all the latest in privacy laws and applications. Her background and education has shaped the way in which she views digital citizenship. She shares her knowledge with her students, especially at times when she is surprised, such as the time she acquired new knowledge during an app committee meeting about all the ways in which privacy can be compromised online.

Margaret also experiences digital citizenship by sharing her online world with her students and creating a learning environment in which everyone can learn from each other. A lot of her experiences have been influenced by her own son’s social interactions “through Instagram and chatting on Instagram and things like that.” She shared that by having several of her own Instagram accounts and different handles based on her different interests, “I don’t always want to see teaching stuff on my Instagram and I do crafting and card making and stuff so I have different handles for that.” Margaret’s experiences have also created an understanding and awareness of her son’s interactions on Instagram and the potential for bullying:

He has like six or seven logins, so what happens is he sometimes gets trolled by kids who will like start up an account on Instagram and call it something to just irritate him like with his name in it, and then they comment on his live.

Margaret explained her interest in keeping up to date with what kids are doing with technology and social media:

I want to know what is going on, you know? I love to learn about different things that could be used for my kids and my classroom. Also I'm all over social media, I'm on Twitter, and I'm learning a lot on TikTok.

Margaret's participation in popular social media sites alerted her to the ways in which students are also using multiple handles in Instagram. She explained how students' use of multiple handles differ from hers: "That's not what it's being used for, it's being used by kids to hide behind an anonymity like an anonymity to be mean." She also shared another example of how she tries to stay interested in what her sons and her students are doing online. She shared a story about a time when she played Among Us with her students, student teacher, and partner teacher and how it built a new relationship between the teachers and students:

We were coming into their world. We weren't imposing what we wanted to do on them, that was something they did, and then I started asking questions like "What do you do in this game?" and then they were shocked that were like, "Let's play it, I'll download the app right now let's play it!" They got to be the experts and walk me through here's what you can do, here's what you gotta do, but it was so funny because, once you get into the game they want to be their own player and they don't want to tell me that I made a really dumb mistake, they said, "I wasn't paying any attention to you!"

The bonding that happened in this game gave Margaret an open window into her students' world of popular urban culture. Margaret's desire to share in the rich and meaningful culture of her diverse group of students speaks to the value she places on sharing meaningful and relationship building experiences with her students. The experience of how her students immersed themselves in the app was "fascinating" to her.

Another way in which Margaret experienced digital citizenship lies in her advocating for digital citizenship, speaking up when she encounters teachers not upholding certain standards of digital citizenship, like expecting students to follow copyright, for example. She recalled a time when a teacher allowed a student to use a culturally insensitive image:

This was when we were departmentalized, there was a fourth grader who had copy and pasted a culturally insensitive image, and her argument was the other teacher didn't tell her she couldn't use it, because the rules are different. I don't think the teacher knew that she had put that in there, but on the flip side, I did talk to the teacher and say, "Hey you know the thing is, we kind of have a responsibility to teach them not to just take things off the Internet, like not to just copy and paste off the Internet, without giving credit." He did not care, you know, like he just wanted them to make a PowerPoint. It's when we have students compile things like that, there are layers of responsibility that are ours to make sure we cover whether or not the kiddos do it or not you can't control but you can at least put it out there for them.

The teacher did not welcome her insight, but Margaret held to her stance: "I did my due diligence." Margaret also extended this sense of digital citizenship responsibility to protecting her students:

I feel that protecting the students online falls under *in loco parentis*. I would not let someone harm them under my care, and I would not let them do something physically reckless. I feel compelled to protect them from abuse of online applications as well."

### ***Margo***

The structures that permeate how Margo experiences digital citizenship are rooted in the responsibility she feels for helping her students learn about the digital tools and technologies that

they are using on a daily basis. Margo feels it is important to connect with and relate to her students. She takes the time to learn about new social media and video games that her students use so that she can learn with her students and provide ideas on how to be safe.

It's our responsibility as adults, what a parent or a teacher or an administrator or whatever to teach students how to use the Internet appropriately and we need to model that for them. I forget where I heard this once but someone was saying, well, I will always play video games with my child more so, so that I can walk them through it, and if things happen, helping them know what is an appropriate way to respond, or, not appropriate, like we shouldn't do that.

Margo knows that her students are probably using Snapchat and TikTok. She said, "I hope they have their parent's permission," but she recognizes the fact that many probably do not, or their parents are not aware of all kids can do on social media apps. Margo helps support her students through recognizing their social media use and providing realistic and relatable scenarios for discussion. Margo used her students' native language of Spanish to tell the story of a relatable Hispanic character, Camila, a student "like you," as a way to help her students to problem-solve a likely online situation:

This is Camila. Camila is a student like you. She likes to play video games like Minecraft, Roblox, and Among Us. Camila likes to connect with her friends in TikTok, Snapchat, and text messages. Oh no! She had a problem when she was online. Somebody said something bad about her and posted her photo without her permission and someone asked Camila to share information online, but she isn't sure she should share.

Margo used relatable and real-life digital citizenship examples representative of her students' Hispanic culture to engage her students with digital citizenship.

## *Samantha*

How Samantha experienced digital citizenship was largely influenced by her desire to make digital citizenship skills authentic and engaging for her students. However, she struggles to engage students in learning digital citizenship skills and hold their attention as some of the content is dry and “it’s hard to make this stuff exciting.” She does look for opportunities to use authentic contexts for her students, focusing on their interests. Although Samantha is not on a lot of digital platforms, as she personally is a “very private person,” she acknowledges her students’ desire to share with others online: “My kids like to share a lot about themselves and so you know we talk about what information is good to share and what is not good to share.” She uses the Common Sense Media website to help engage her students in rich discussions and analyze content from social media posts, which she knows is something her students are part of, so having digital citizenship skills for sharing content can benefit them. She detailed how

I go to the Common Sense website and they’ll have little excerpts and examples and so we’ll read it out loud and I’ll say, “What do you think of this person who posted this online?” Then the kids will give me feedback about what their impression is of this fictional kid, and I say, “Okay, you know, think about that, when you are posting things online what’s it going to say about you?”

Samantha enjoys engaging students with content that interests them. “It can feel really rewarding when the kids engage in the material, especially when they start sharing personal experiences.” The most meaningful lessons come out of when she can make the content relatable. “It’s great when they can connect it to their real life.” Samantha said she has to remember to avoid lecturing and to “really get them talking.” She told how

I keep asking them about their personal experiences, because they do like to share so I have to keep remembering you know to think of ways to make them connect to it, you know, because most of them have had experiences positive and negative.

Additionally, Samantha teaches her students about their digital footprint through the concept of YouTube channels, engaging them in a discussion about how their content can come across to others, since she knows that most kids enjoy going to or creating YouTube channels. “Maybe 5 years ago they didn’t get it, but now more and more kids are creating content.” She explained,

They are creating their own content, even if it’s comments or they’re setting up a YouTube channel which a lot of kids do more and more of, they have to think about you know their perspective on life, their experiences and what kind of message they want to put out there.

Samantha said when she can engage her students, it helps them “really absorb the information and understand it.” She does feel, however, that it is much more difficult to engage younger students, especially in kindergarten, first, and second grades. In general,

it’s hard to think of projects that are necessarily going to you know strike the right tone that are going to keep them engaged be fun enough to keep them engaged and communicate to them the seriousness of digital citizenship.

### **Composite Textural Descriptions of Horizon One: Digital Citizenship Defined**

The composite textural descriptions of the experience are those which arise in all of the given cases and overlap (Moustakas, 1994). I detail the overlapping invariant qualities of digital citizenship defined for the administrators, students, and teachers.

## **Administrators**

The administrators both identified online safety as a common invariant quality; however, the ways in which they defined online safety were different. Philippe focused on online searching and sticking to appropriate sites and avoiding the temptation to search for other unsafe content. Lucile also identified online safety as being important; however, she explained that online safety is a broad topic going beyond just keeping usernames and passwords safe, but extending to updated definitions with students' participation in digital communities.

## **Students**

The students identified finding reliable sources as a common invariant quality in defining digital citizenship. All three students felt that it was challenging and overwhelming to find trustworthy and reliable sources and that they did not necessarily get a lot of practice with the skill. Some of the students commented that they looked to a trusted adult, such as a teacher, to provide them with trustworthy sources. The students said they would benefit from additional instruction in finding reliable sources. The students all recognized that there is a lot of untrustworthy information out there online and recognized the need to find accurate information.

## **Teachers**

The teachers identified the digital footprint and protecting one's private information as common invariant qualities in defining digital citizenship. All three teachers felt that students were not necessarily aware of all of the ways in which their privacy might be compromised, but that students should understand that their online actions leave behind a digital footprint, which is almost impossible to erase. Margo specifically explained the difficulty of teaching this concept to younger students, who struggle to grasp concepts that reflect something that is in the future.

## **Composite Textural Descriptions of Horizon Two: Essential Skills and Knowledge**

The composite textural descriptions provide an “integration of all of the individual textural descriptions into a group or universal textural description” (Moustakas, 1994). The composite textural descriptions of the experience are those which arise in all of the given cases and overlap (Moustakas, 1994). I detail the overlapping invariant qualities of the essential skills and knowledge in the composite textural descriptions. I provide descriptions for each research participant group of administrators, students, and teachers.

### **Administrators**

The two administrators both identified reporting inappropriate behaviors as an important digital citizenship skill. Philippe described several instances of students reporting inappropriate behaviors to a teacher, to alert them to things other students were doing online. Lucile also felt that it was important for students to report inappropriate behaviors, especially cyberbullying, and recalled that a severe instance of cyberbullying could have been avoided if students had reported the behavior, instead of keeping it to themselves. The situation caused Lucile to reflect on the importance of reporting inappropriate behaviors right away and the dangers that can present themselves because of not doing that.

The administrators also both identified avoiding cyberbullying as another digital citizenship skill. Philippe spoke more about his role as an administrator dealing with cyberbullying. Philippe explained he has no tolerance for bullying and lets his families know up front what his expectations are. Lucile also identified cyberbullying as something to know about, especially how social media can be used to send dangerous messages to target and bully students.



## **Students**

All three students identified finding reliable sources as an important digital citizenship skill. Leon, specifically included games and apps in his explanation of the importance of being able to find reliable sources. He explained how he had downloaded apps and games that were not authentic, causing him to get a virus on his device or have his privacy compromised. Eleanor and Leon explained how teachers helped them identify trustworthy sites and how they relied on a teacher's help to find and use reliable sources. All three identified the importance of finding and using reliable sources, but Ava and Eleanor specifically explained that students should use multiple sources to gather information and not just use one website for research.

## **Teachers**

All three teachers identified protecting private information and understanding one's digital footprint as important for skills and knowledge. The teachers shared a concern that students do not always know the difference between what types of information they should share and what information to keep private. Teachers also mentioned that students need an awareness of all the ways in which privacy can be compromised. Margaret mentioned "cookies" unknowingly gathering information about users, and Margo explained the importance of checking an app, website, or social media platform for the terms and conditions to understand how the application uses or sells private information. Samantha shared her students' fear: "The idea that someone could harm them through their computer by gathering information I think really scares the crud out of them."

All three teachers also mentioned helping students to understand the concept of their digital footprint as important knowledge. Margaret summarized the importance of a digital footprint for her students by helping them think about the permanence of their online actions: "If

it's something fantastic and it's not going away, that's awesome, but if it's something not fantastic, then that's not awesome. It's just the sheer speed with which things can get out of control." Margo pointed out that learning about one's digital footprint is challenging for young students because it is "such an abstract concept" but nonetheless important because the digital footprint "can affect their life later on." Samantha shared a personal example in which her partner took to Twitter to rant about faulty home products, and she was upset because of the way in which her partner was representing himself as a "complainer person." Samantha stressed the value in understanding that "any content you create" leaves "a trail of information about yourself" and that it is "nearly impossible to erase."

### **Composite Structural Descriptions of Horizon One and Horizon Two**

The composite structural descriptions provide a way of understanding how each research participant group of administrators, students, and teachers experienced what they experienced (Moustakas, 1994). The composite structural descriptions provide the essential structural features among all participants of how the participants experienced defining digital citizenship and how they experienced digital citizenship skills and knowledge. I will later combine the composite textural and the composite structural descriptions to arrive at the synthesis or essence of meaning for each group of research participants.

#### **Administrators**

The two administrators shared how their experiences with digital citizenship have been shaped by their own sons' experiences with technology. Although their sons' specific experiences differ, both administrators' views of digital citizenship can be traced back to understand how they place value on specific digital citizenship skills and how they define digital citizenship in general. Philippe shook his head during our meeting and sadly proclaimed, "the

two of them, they cannot type on the keyboard to save their life!” Philippe’s feelings that his disadvantaged sons have been excluded from valuable technology skills has affected the way he views essential digital citizenship skills now and the importance he places on understanding the functionality and capabilities of technology:

My sons were never taught keyboarding skills so for them that’s a barrier for them when they use technology, because it’s time consuming because they’re peckers. They don’t know how to, and so I think you know that’s a functionality piece of it. They view that as a barrier, because they never learned keyboarding skills. My oldest, he’s working, and his job requires him to use it, but my youngest, other than gaming he has no desire to use technology, other than to search you know, on his phone or whatever, because he was never taught at a younger age the functionality of technology.

Philippe concluded that schools are not spending enough time on helping kids understand the functionality of technology and all the capabilities of it to make one’s life easier and more efficient.

Lucile’s son also had an influence on her experiences with digital citizenship. “I often see the world through the lens of my son as he grows into himself in this big world.” Lucile firmly believed her son should take part in having healthy online connections and not be kept from social media. She adamantly said, “I don’t believe in sheltering children.” Lucile firmly believed that her son’s participation in social media and being part of a digital community has had a positive effect on her son’s well-being, especially during lockdown in the COVID-19 pandemic, when her son could not visit friends and family face to face. Lucile also expressed the significant social and emotional effect of the events of the past 2 years: “We have lived through a renewed wave of civil rights activism, a global pandemic, and quite a bit of unrest in our communities and

cultures.” The unsettling societal events that have occurred have led Lucile to expand her understanding of empathy and compassion for others, especially in times of high stress and anxiety. Lucile has found the emotional value of healthy connections to be invaluable especially in recent years, and she uses social media to enrichen and broaden her perspectives. She spoke of how social media positively changed her life:

I have sought out ways to make social media experiences a positive factor in my life.

That does not mean I only connect with information that is positive or makes me feel good. Rather, I seek out information and people that push my thinking and expand my understanding of the world around me.

Lucile acknowledged an emotional connection with how social media has changed her life, for the better. She happily shared, “I have connected with more new people and ideas in ways that were previously inaccessible to me. I have attended webinars, joined Twitter chats, and connected with Instagram profiles that have helped me understand my world in broader ways.”

How she and her son embrace social media has affected her on a social and emotional level:

Social media is interwoven into every part of the fabric of our lives. For most people, it is so ingrained that they don’t even notice the impact it may be having on their lives. In the case of our young people, they do not know of an existence without it. For these reasons, and through my own experiences, I have sought out ways to make social media experiences a positive factor in my life. I seek out information and people that push my thinking and expand my understanding of the world around me. Through multiple algorithms, social media platforms have learned how to tailor your experience to what they think you will interact with the most. This has advantages and disadvantages.

However, once you are aware of this, you can steer your experiences to things that work for you.

Lucile passionately believed that both her and her son's social media is part of their identity. The support she provides her son is evident in her belief that "digital citizenship for me is building healthy connections and relationships in order to expand our understanding and empathy for others."

Cyberbullying was another common structure both administrators shared and how the administrators treated cyberbullying was greatly affected by their own beliefs, as well as the culture of their school buildings. Philippe passionately holds a zero-tolerance policy for bullying, and is very upfront with his students, staff, and parents that he has "no tolerance for bullying."

He forthrightly explained:

So any type of any form of it, if it was happening outside of school and outside my realm, I always encouraged and a lot of times we'll invite the police to come into the building and talk with the students and their families; the bully's family, as well as the victim's family, so they understood their rights and what they could do to pursue filing a report.

Philippe viewed cyberbullying as a human rights issue and was firm in his belief that all parties involved, including the students' parents, need to understand their rights and no one should have to endure bullying "in silence." Philippe explained how he used the police as a last resort if he was unable to mediate the situation between the students and parents. He felt an emotional responsibility to help the parents, as well as the child, "to understand the ramifications for their actions." Issues of cyberbullying have been very taxing, emotional, and eye opening for Philippe. He admitted that he "doesn't deal well with it." He shared his own experience:

Cyberbullying is a reality, it just really opened my eyes to what kids know about technology and unfortunately what the bad things they know how to use it for, how inappropriately they use it. The other thing is how it made me more aware of how much access they have unsupervised outside of the home.

When Philippe encountered cyberbullying, he frequently encountered a lack of parental support, as often the bully's family will deny any allegations, even when presented with evidence, to the point where they called the administrator a liar. He was firm but respectful, maintaining his stance of supporting all parties involved, ensuring everyone knows their rights, and what they can do to pursue a police report.

Lucile described her elementary school as a small, close-knit, and more rural, which allowed her to handle a delicate issue of cyberbullying in a unique way that honored the culture of the school. A small group of fifth grade girls was using social media to target and cyberbully a student, which ended in telling a girl she should kill herself. The situation was spiraling out of control, and it was taking a toll on the school learning environment. Lucile harnessed the power of a small community school culture as she leaned on her school resource officer to come in and talk about digital citizenship and responsibility. She shared how understanding her school culture helped her successfully resolve the cyberbullying:

It's a very small school and I don't use my school resource officer the way some other schools may. He's just officer XYZ, he pops in and he's the students' friend and he just happened to pop in and talk about digital citizenship that day, so it was powerful coming from him as a lot of them are friends with him. I wouldn't probably have done that, like in a different school setting. That was one where you know your school community and

your school culture but we had to be explicit and talk about consequences for cyber bullying and harassment.

Lucile will never forget the deep pain the victim experienced as she reflected on the situation which helped her understand just how deep and dark students' feelings can get:

I was able to sort of draw on my knowledge and understanding about feelings and emotions so early on my administrative career. It really helped me build my own capacity and understanding for the depths that students might go to harm others, and the lengths that which kids will go to try and sort of feel their own bad feelings by hurting others.

### **Students**

All three of the student participants shared a common experience of the importance of finding reliable sources online. The students experienced the difficulties of finding reliable sources through their classroom research projects. The students all described their experiences finding inaccurate information for a class research project, and the students all expressed a certain level of frustration and a lack of confidence in their ability to have the skills and knowledge to find reliable sources independently, without a teacher's help. Eleanor, a serious student who values education and is quite intellectually capable of independent work, placed a high importance on finding reliable sources because finding and using the wrong information for a book report or other academic research project could lead her to get a bad grade or being misinformed about an important topic. Eleanor credited her enthusiasm for learning to "a little from my parents and a little from school, but also just the world and life." From Eleanor's perspective, being limited to the websites her teacher provides her or sticking exclusively to kid-safe search engines such as Kiddle greatly affected the depth and breadth of knowledge she was able to obtain online. She expressed annoyance at being "stuck." Eleanor admitted that within the

constructs and limitations of how teachers engage students in research at school, she could not always find what she was looking for. She generally had to just make the best of it, often resulting in limited information, or changing her topic of interest to something that was more searchable. Eleanor would very much like to learn more skills to advance her own ability to conduct research and find reliable sources.

Ava and Leon both shared that in the culture of their own school, teachers generally provide students with websites to use for research by creating a list for students or placing appropriate links on the teacher's website for the students to access. The other scenario is that students have free rein of Google and waste a lot of time searching for information because students do not really have the know-how to perform advanced or Boolean searches, leaving students on their own to figure it out and get lost in millions of results. Regardless of whether the students were using a spoon-fed approach or left to their own devices to find reliable sources through Google, they were not being taught the skills they need to find and evaluate reliable sources of information. The three students all expressed the desire to learn more about how to independently find reliable sources online, and avoid "being ignorant on a topic," as Ava put it.

### **Teachers**

All three of the teachers shared the experience of how they desired to engage students in authentic, meaningful, and relatable contexts unique to their students' cultures and school climate. Each teacher spoke about the value of being able to relate to students and provide them with meaningful lessons and discussions to engage them in digital citizenship skills. Margaret took the initiative within her own classroom by playing *Among Us*, a popular video game representative of the urban culture of many of her students, with her students. She fondly described how the experience allowed her to become a part of her students' world as the students



“became the experts.” Her students could not wait to play again. Margaret attributed their excitement to the fact that “we weren’t imposing what we wanted to do on them, that was something they did.” Margaret showed her students that she was not afraid to take a risk, to show herself struggling in the game and asking her students for help. The act of engaging in Among Us was a powerful way in which Margaret brought in her students’ unique interests and love of video games. She showed her students the power of relationship building by creating a trusting school culture of sharing, being vulnerable, and building trust with her students.

Margo placed value in showing how important it was for her as a teacher to be a positive role model helping her students navigate the digital world such as helping them understand and navigate potential issues and scenarios that they may face on their daily interactions in video gaming and social media. Margo’s families have 100% limited English proficiency, so she takes on an added role as a teacher, not only supporting the cultural background of her students but also recognizing the linguistic barriers for families. Her families may not have the language proficiency to understand the terms and conditions or legal jargon of a website, to help their children stay safe online.

Samantha also acknowledged the culture of students to draw them in with authentic experiences reflective of students’ backgrounds and interests. For example, she used students’ love of sharing content on YouTube as a way to teach students about having positive interactions with others online. She also recalled her students’ love of memes, which she used as a springboard to teach students about copyright and images under Creative Commons that they could safely use for their memes. She was also sensitive to her students’ socioeconomic background: “I know that we have with our families like 86% [of our students eligible for] free and reduced lunch, so we have a lot of poverty, so our family our kids have very little.”

Samantha relayed that it was a very real and very scary reality that her students faced “the fact that someone could harm them through the computer.” Samantha expressed countless times when students came to her, fearful over their safety online, anxiety over the fact that their account had been compromised, or someone shared their password, or their stress over their parents’ fears being transferred to them. Samantha understood the culture of her school and listened to her students calmly and has taken time after her scheduled library class time to listen to her students, giving them “tips on what they can do.” Samantha is cognizant of her students’ specific needs and uses realistic issues as springboards for lessons or discussions to help her students with digital citizenship issues they encounter in their daily lives.

### **Synthesis and Essence of Meaning**

I integrated the composite textural and structural descriptions during the imaginative variation as the final step to discover the “synthesis of meanings and essences of experience” (Moustakas, 1994). Essence, as Husserl imagined, means that which is common or universal, the condition or quality without which a thing would not be what it is (Moustakas, 1994). Responsibility was a common theme both texturally and structurally for administrators, students, and teachers. A sense of responsibility was at the heart of the meaning of digital citizenship for all three groups of research participants, although what they valued as responsibility varied.

#### **Administrators**

It was evident that the essence of the administrators’ own personal experiences with technology influenced their views on digital citizenship. Administrators considered the technology experiences or lack thereof of their own children as a large factor in the value they placed on the functionality of technology. Online safety was another extremely important component of digital citizenship, and personal and emotional experiences with bullying heavily

weighed in on the value the administrators placed on online safety. The administrators viewed online safety as having an awareness of cyberbullying, staying within familiar social circles, avoiding online interactions with strangers, and surfing the Internet safely. The administrators acknowledged the prevalence of cyberbullying within their schools and the devastating effects of cyberbullying on students' social and emotional health. The administrators considered issues related to online safety and cyberbullying as human rights issues. Due to the ability of dangerous messages to spread like wildfire through social media, the administrators believed that cyberbullying must be immediately addressed. The administrators shared how students' use of social media outside of school has presented unique challenges for administrators in how they are able to address cyberbullying and contain dangerous messages from spreading. However, the administrators noted that timeliness is of the essence as the effects from cyberbullying spill over into a school day, quickly poisoning the school culture and climate. While acknowledging the harmful effects of cyberbullying, the administrators shared the power of harnessing a small community culture to help deal with issues of cyberbullying. The administrators believed that having a close-knit community is essential to establishing trust and using key support systems such as school resource officers in a helpful and nonthreatening way. Administrators believed in a zero tolerance for bullying and acknowledged the fact that parents are not always supportive of how an administrator handles delicate issues of cyberbullying, especially for the perpetrators of the bullying. The administrators also shared the great lengths students will go to harm others online. The administrators took great ownership in protecting their students and families and letting them know of their rights.

The administrators placed much value in responsibility and believed students should be held accountable for taking care of their own devices and accessories. The administrators thought

the lack of students' accountability to care for their devices showed a lack of respect for technology in general. The administrators also believed that it is time to "go back to the basics" as students lack an understanding of the functionality of technology and that students are "misguided in what technology is used for." Administrators considered the responsibility and accountability of students' abilities to take care of their devices and accessories as part of their responsibility as digital citizens.

The administrators also believed in helping students nurture an understanding of the responsibility associated with one's digital footprint and that students' actions and words online are a part of their digital footprint, affecting students' digital lives. The administrators shared the increasing importance of the ability of the emotional value of healthy connections to show the value of social media to enrich and broaden perspectives. The administrators believed in building healthy connections and relationships with others online and that responsibility comes with using technology safely.

## **Students**

The students identified finding reliable sources online, showing kindness to others, and online safety at the core of digital citizenship. Students shared the value of finding websites and applications relevant to their needs. The students expressed concern over the lack of opportunity to practice finding reliable sources, indicating that standard practice calls for teachers to direct students to websites to use during research. At the other end of the spectrum, students shared another scenario in which they could search freely on Google, with no teacher direction, which resulted in much frustration. The students placed value in knowing how to find reliable sources to avoid being "ignorant" on a topic; they didn't want to get a bad grade on an assignment if they used unreliable sources for their school projects or were not able to find the information they

needed with the limited resources. Overall, the students felt overwhelmed and unprepared to take on the large task of scouring the Internet for reliable sources. Although they felt their teachers were helpful in providing them to websites to use, they expressed the desire to learn how to do this independently; they wanted to be able to use search engines like Google for their searches, instead of sticking to “kid-friendly” search engines or preselected websites.

Students also shared the importance of showing kindness to others and believed that the Internet should be a positive and fun place for kids. Many of the students placed value on showing kindness as a direct result of from their time spent on various video game platforms in which they witnessed much scamming and mean behavior. The students compensated for others’ lack of kindness by going out of their way to say nice things to others, compliment others, and give back items to others who were scammed.

Students also sensed the importance of online safety through their negative experiences online. Students shared their experiences with online scams in which their private information was stolen. Students also expressed that part of being safe online meant avoiding communications with strangers, as well as staying out of online arguments, which could quickly get out of hand. Students felt it was important to know how to disagree respectfully, instead of arguing.

## **Teachers**

The teachers, at the core of their instruction in digital citizenship, believed it was incredibly important to relate to students by creating authentic learning experiences by sharing meaningful lessons and discussions and serving as positive role models to students. The teachers believed making connections from the content to the learner helped create a sense of relativity and meaningfulness for students, which helped bring digital citizenship content to life, especially

considering the seriousness and dry nature of many digital citizenship topics. The teachers also shared a sense of responsibility in helping their students become responsible digital citizens who understand the concept of a digital footprint and are careful of what types of information they should share online.

### **Essence of Digital Citizenship is Responsibility**

Administrators valued responsibility and that digital citizenship is about the functionality of technology and having an awareness of cyberbullying, as well as showing accountability to care for devices, as well as understanding the concept of a digital footprint. Administrators also felt building healthy connections and relationships with others was another part of responsibility. The student perspective also showed responsibility as being the most important consideration in becoming a responsible digital citizen. The students believed that finding reliable sources online, showing kindness, and having online safety skills all required great responsibility. Lastly, the teachers also identified responsibility as the most important aspect of becoming a responsible digital citizen. The teacher perspective showed that teachers valued meaningful lessons and discussions as methods to engage students with digital citizenship, and they felt a great sense of responsibility in helping students learn digital citizenship in engaging and authentic ways. Additionally, the teacher perspective showed that teachers felt a sense of responsibility for helping students learn about the impact of a digital footprint.

## CHAPTER V: FINDINGS, DISCUSSION, IMPLICATIONS, AND FUTURE RECOMMENDATIONS

### **Problem, Purpose, and Research Questions**

The problem of the study was the lack of perceptions and experiences about the essential skills and knowledge to become a responsible digital citizen from the perspectives of administrators, students, and teachers (Güven, 2018). The purpose of my study was to explore the perspectives and lived experiences using a transcendental phenomenological approach from K–5 administrators, students, and teachers considering the essential skills and knowledge to become a responsible digital citizen. The central research question was, what are the essential skills and knowledge to become a safe, savvy, socially responsible digital citizen demonstrating appropriate, responsible, and empowered technology use? I used the data and verbatim text from the research participants' digital journals, semistructured interviews, and creative synthesis products (i.e., digital story, digital logo, social media post, digital poster) to answer the following subsidiary questions.

#### **Subsidiary Question 1: Definition of Digital Citizenship**

How do K–5 administrators, students, and teachers define digital citizenship?

Digital citizenship is having the skills and knowledge to be safe, respectful, and responsible online. Above all, digital citizenship means accepting responsibility for making ethical choices that protect one's digital footprint and the rights and responsibilities of others through participation in a digital global community.

The administrators defined digital citizenship as the responsibility to use technology in a responsible manner, which means taking care of one's devices and accessories as well as responsible use of technology as part of a larger, global community to build healthy connections

and relationships to expand understanding and empathy for others. The administrators also defined digital citizenship through online safety and cyberbullying, and knowing the functionality and capability of technology, as students are “misguided in what technology is used for.”

Students defined digital citizenship as being responsible by finding and using reliable online sources and showing kindness to others. Digital citizenship is also being respectful by not arguing with others online. The students also defined digital citizenship as being safe online by being cautious, avoiding online strangers, and protecting private information to avoid online scams.

Teachers defined digital citizenship through the responsibility to help protect others manage and protect their digital footprint. Responsibility also comes with having media balance and self-regulation and understanding the importance of not sharing online scams with others, as well as knowing how to evaluate online content. The teachers also defined digital citizenship as being safe online by having an awareness of stranger danger, cybersecurity, protecting one’s private information, and asking permission to use a specific website and post photos and content of others. The teachers also defined digital citizenship as being respectful, knowing how to disagree respectfully online, and having positive interactions with others.

I used the most salient findings gathered from the research participants’ digital journals, semistructured interview, and digital stories to arrive at the definitions of digital citizenship for each research participant. Table 1 presents the research participants’ essential definitions of digital citizenship.



**Table 1.**

*Participants' Definitions of Digital Citizenship*

Role	Definition
Administrators	Digital citizenship is responsibility, online safety, and understanding the functionality and capabilities of technology, building healthy connections with others, and understanding the impact of one's digital footprint.
Students	Digital citizenship is responsibility, showing kindness to others, and being cautious. Digital citizenship is being respectful and having positive online interactions. Digital citizenship is also being safe and protecting private information online.
Teachers	Digital citizenship is responsibility, managing one's digital footprint and accepting the consequences for not being responsible. Digital citizenship is being safe online and having an awareness of stranger danger and cybersecurity. Digital citizenship is also about being respectful of others by having positive online interactions.

**Subsidiary Question 2: Administrator's Perspectives**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of administrators' lived experiences?

The administrators identified essential digital citizenship skills as being safe by staying within familiar social circles and avoiding online interactions with strangers, as cyberbullying is unavoidable due to the rapid rate in which technology can be used to bully and intimidate both at home and school through personal cell phones or district devices. The administrators also felt that students needed to know how to report inappropriate behaviors. The administrators also identified key responsibility skills, such as showing empathy to others, so students understand how to interact in an online community and can have respectful connections with others. The administrators also believed that students need digital literacy skills and need to understand the functionality of technology and understand the capabilities and purpose of technology beyond

playing games on a mobile phone. The administrators stressed the specific knowledge of understanding the negative aspects of social media associated with cyberbullying and students' unrestricted online access as "students go in and search for things that are not appropriate or they use social media to bully." Administrators and teachers must consider several factors for becoming a responsible digital citizen. Administrators need to know that to become a responsible digital citizen, there needs to be parental support, collaborative staff efforts, more time and professional development for teachers. There also needs to be a clear definition of digital citizenship and consistency in digital citizenship skills instruction for students—a program that "continues to grow so every year you build off what they learned the year before." Administrators also felt that it was important to know about the positive aspects of online interactions, such as creating a sense of community for learners, how to create an online community, and knowing about the responsibility that comes with being part of an online community. Administrators also need to know about the negative aspects of online interactions, with a focus on online safety and cyberbullying. Administrators believed responsible digital citizens need to know about how protect others online, such as by asking permission before posting about someone else.

I used the most salient findings gathered from the administrator research participants' digital journals, semistructured interviews, and creative synthesis products (i.e., digital story, digital logo, social media post, digital poster) to arrive at the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen. Table 2 presents the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspectives of administrators' lived experiences.

**Table 2.**

*Administrators' Perspectives on Essential Skills and Knowledge for Digital Citizens*

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Essential Skills:	Knowledge:
Staying within familiar social circles	Cyberbullying
Avoiding online interactions with strangers	Dangers of students' unrestricted online access
Functionality of technology	Dangers of sending dangerous messages online
Digital literacy	Positive and negative aspects of social media
Showing empathy to others	Need for more parental support
Reporting inappropriate behaviors	Need more time to teach digital citizenship
Creating a sense of community for learners	Need support, guidance, professional development for teachers
Maintaining social networks and connections with others	Need consistency in digital citizenship skills instruction
Protecting others	Need collaborative staff efforts
Having permission	Need clear definition of digital citizenship

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**Subsidiary Question 3: Students' Perspectives**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of students' lived experiences?

The students identified several essential digital citizenship skills. The students believed they needed responsibility skills to ignore mean behaviors and have an awareness of others online. The students also said they needed skills to find trustworthy and reliable sources online because "you can't always believe everything you read." The students also believed being respectful, having empathy, and showing kindness is important so students think not just of themselves, but of their online community. The students also pointed out that they needed to know how to disagree respectfully to avoid online arguments, even among friends. The students

said they also needed to know about online safety and believed it was important to be cautious and think before acting; staying in familiar social circles online and visiting online with “real life friends” could help them stay safe. The students said when they do encounter mean behaviors that cannot just be ignored, they need to know how to report unsafe behaviors and whom they can trust. The students also felt it was important to know how to protect their private information to avoid falling for online scams.

I used the most salient findings gathered from the student research participants’ digital journals, semi-structured interviews, and digital stories to arrive at the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of students’ lived experiences. Table 3 presents the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspectives of students’ lived experiences.

**Table 3.**

Students’ Perspectives on Essential Skills and Knowledge for Digital Citizens

Essential Skills:	Knowledge:
Ignoring mean behaviors	Showing kindness to others
Having an awareness of others	Showing empathy to others
Finding trustworthy and reliable sources	How to report unsafe behaviors
Protecting private information	Knowing who to trust
Being cautious online	How to seek help from a trusted adult
Seeking help from a trusted adult	Stay in familiar online social circles
	Being cautious and thinking before acting
	How to avoid online interactions with strangers
	How to disagree respectfully
	How to protect private information

#### **Subsidiary Question 4: Teachers' Perspectives**

What are the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of teachers' lived experiences?

The teachers believed responsibility to others was an essential digital citizenship skill; "it can't be the responsibility of just one grade level teacher to teach digital citizenship skills." The teachers felt students also needed basic troubleshooting skills "to try to find answers to problems." The teachers believed that students also need critical thinking skills to evaluate the credibility of information and in using reliable sources ethically, as students tend to accept information at its "face value."

Additionally, students need skills to understand functionality of programs and digital tools to "understand the tools that are at their disposal" considering the vast array of platforms, apps and programs available to students. Safety skills were also important to teachers, such as knowing how to protect private information online, and students needed to know all the ways in which their privacy can be compromised. Teachers also felt that students needed to be aware that everything online makes up one's digital footprint and explained that students don't always understand or think about the permanency of their actions; it is an abstract concept for them to understand. Teachers also explained that teaching students to respect others and their opinions online is another essential digital citizenship skill, which needs to be explicitly taught because students are used to posting "whatever they want on social media" and do not always know what constitutes "acceptable commenting."

Teachers need to know how to model and share their digital world with students and discover ways to engage students in authentic ways. As Samantha explained, digital citizenship skills are not always the most fun for students; "it's hard to make a lot of this stuff exciting." The

teachers also pointed out that students need to know that “things are not always what they seem online” and stressed the importance of knowing this to avoid online scams, stranger danger, and falling for misinformation.

I used the most salient findings gathered from the teacher research participants’ digital journals, semistructured interviews, and digital stories to arrive at the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspective of teachers’ lived experiences. Table 4 presents the essential skills and knowledge to become a safe, savvy, and socially responsible digital citizen from the perspectives of teachers’ lived experiences.

**Table 4.***Teachers' Perspectives on Essential Skills and Knowledge for Digital Citizens*


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Essential Skills:	Knowledge:
Responsibility to others	How to model and share the digital world with students
Basic trouble shooting	How to engage students in authentic ways
Finding and using reliable sources in an ethical way	How to create meaningful lessons
Critical thinking skills	How to be a positive role model for students
Being cautious and skeptical	Awareness of potential safety issues for students
Fact-checking	Understand things are not always what they seem online
Critically evaluating the credibility of information	Avoiding dangerous people online
Understanding the functionality of programs and digital tools	How to avoid online scams and not share them with others
Knowing when to share and when to protect private information	Asking permission before posting
Being aware of one's digital footprint	Awareness of digital footprint
Respecting opinions of others	How to interact positively with others online
Disagreeing respectfully	Being cautious online
How to check an app, website, or social media platform for terms and conditions	
Asking for help if someone or something has gone too far	
Avoiding online scams	
Understanding copyright and usage rights	

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## **Implications for Practice**

### **Implications for Administrators**

The practical implications of this study will guide how administrators understand digital citizenship and identify essential skills and knowledge to help students become responsible digital citizens. The administrators in this study believed that for students to become responsible digital citizens, there needs to be administrative support and a clear definition of digital citizenship. Furthermore, my findings indicate that administrators should work cooperatively with parents, students, and teachers to establish digital citizenship expectations and responsibilities so all stakeholders are working toward a clearly communicated vision and common goal (Yee, 2000). Administrators should support teachers and work together to develop an understanding of digital citizenship that reflects the school's values and needs, especially as needs change during the COVID-19 pandemic. Administrators should consider professional development in digital citizenship as part of the pedagogy of today's curriculum. In addition, administrators should promote the importance of digital citizenship within their own schools, citing the importance of safety, respect, and responsibility for all. Strong school leadership is critical, and research supports that the practices and dispositions of school administrators have a direct impact on teacher well-being (Kyriacou, 2001), student achievement (Robinson et al., 2008), and reform efforts (Marzano et al., 2005).

Leaders should foster and develop for themselves, staff, and students a unique set of skills and competencies beyond the traditional role of a school leader. However, the transformation of new leadership roles and responsibilities requires a solid research base and ongoing dialogue (McLeod & Richardson, 2011) and should focus on student engagement,



shared vision, equity and access, professional development, and ubiquitous networks (Flanagan & Jacobsen, 2003).

### **Implications for Students**

The students in this study all consistently expressed the importance of knowing how to find and use reliable sources of information online. Scholars such as Rosenberg et al. (2020) have acknowledged the vast increase of misinformation online, especially during the COVID-19 pandemic, where social media platforms were well known for the spread of misinformation and denial of scientific literature, making it difficult for students to understand which information is accurate and which is biased.

The students felt inadequately prepared to find reliable sources and expressed frustration at not being able to find information of value for their own interests and school projects. The students' awareness of the need for new media literacy skills is also supported in the literature; several studies found that individuals with greater media literacy are better at recognizing misinformation (Damico et al., 2018; Jeong et al., 2012; Jones-Jang et al., 2019; Lee, 2018).

Students will need new opportunities to gain practice in evaluating online sources and reliable sources of information, moving from a Web 1.0 experience as a consumer of facts, to both consumers and producers using Web 2.0 platforms such as social media applications (Lin et al., 2013), thus promoting new media literacy skills. Students will need more leadership and self-determination responsibilities, as well as opportunities for participatory engagement online, to allow students greater ownership of their projects, as opposed to current methods, which focus mostly on using specific websites to find answers to questions.

## **Implications for Teachers**

My findings indicate that teachers should help students define digital citizenship, as this study revealed varying definitions of digital citizenship. My findings also show that teachers should help engage students with digital citizenship skills, specifically focusing on finding reliable sources of information. As Samantha, a teacher participant in my study, shared, “It’s hard to make a lot of this stuff exciting”; so it will be important for staff to work together to develop a way to engage students with digital citizenship skills in a meaningful way that builds upon prior skills and knowledge, and is responsive to students’ needs (Zittoun & Brinkman, 2012). Staff collaboration efforts will help teachers come to a common understanding of the importance of digital citizenship as well as provide opportunities to create a vision for digital citizenship. All staff members should share in the goal of helping students learn about digital citizenship.

The findings of this study also show that teachers will need additional training and support and may benefit from working collaboratively with a library media specialist to learn more about how to evaluate sources online for accuracy, bias, and reliability. The teachers in this study believed that not all teachers have adequate training in online searching skills or have knowledge of Boolean operators to perform advanced searches, nor have direct knowledge of various search engines that would be beneficial to students. The results of this study imply that library media specialists should be proactive in providing training and professional development to teachers so that students consistently learn how to locate reliable sources and evaluate sources of information for credibility and validity. Teachers should guide students to develop critical thinking skills, which will help students to critically evaluate online content instead of always accepting things at face value, as Margaret noted. Library media specialists should think about

ways to support digital citizenship by providing a diverse collection supporting varying backgrounds, cultures, and viewpoints to guide students in their understanding of respecting the varying ideas of others.

The implications for teachers are contingent upon administrator support for developing a digital citizenship vision for the school and providing professional development opportunities for teachers in the areas of media literacy and evaluating sources. Additionally, library media specialists can play a critical role in advocating for, and providing support in, media literacy skills and professional development for teachers.

### **Discussion of Findings Related to the S3 Framework**

Several themes arose for administrators, students, and teachers through this study. The findings all point to the heart of digital citizenship, which for the participants in this study was responsibility. I explore each of the themes below and relate my findings back to the S3 framework. The S3 framework includes three guiding principles: safe, savvy, and social which support digital citizenship (Ribble & Park, 2019). The nine elements of digital citizenship fit within the S3 framework and include: digital access, digital commerce, digital communication and collaboration, digital etiquette, digital fluency, digital health and welfare, digital law, digital rights and responsibility, and digital security and privacy (Ribble & Park, 2019, pp. 39-41).

#### **Safe Principle of the S3 Framework**

##### ***Online Safety and Cyberbullying***

Online safety and cyberbullying involve being safe and engaging with digital etiquette, which focuses on the electronic standards of conduct, as well as digital health and welfare, which helps users to protect themselves and also refers to the physical and psychological well-being in the digital world (Ribble & Park, 2019). Safety involves acting to protect oneself and others

(Ribble & Park, 2019). Part of being safe is having the responsibility to be “diligent and knowledgeable of our online surroundings” (Ribble & Park, 2019, p. 43). Users also need to consider their digital rights and responsibilities, and understand the need to be aware of potential problems that may occur in the digital world, and report potential dangers (Ribble & Park, 2019). This study showed the prevalence of cyberbullying as a huge issue that needs to be prioritized. Further complicating the issue of safety is the widespread use of social media which has blurred the lines as to what constitutes in-school and out-of-school behavior. Cyberbullying and digital drama tend to pour over into the school. The debate over accountability in online harassment cases has been well-established in the literature as witnessed in the first major case of online harassment which arose in *Beussink v. Woodland R-IV School District* (1998). The student in this case “created a personal web site from home that denigrated the school’s administration using vulgar but not defamatory or threatening language” (Hinduja & Patchin, 2011, p. 74). The student was suspended for 10 days and filed suit against the school district. The U.S. District Court ruled that the suspension was unconstitutional and violated the student’s First Amendment rights. Another case, *Layshock v. Hermitage School District* (2006, as cited in Hinduja & Patchin, 2011, p. 75), examined whether a student could be punished for posting a MySpace profile from his grandmother’s computer, making fun of the school administrators. The court felt the First Amendment protected the student; however, the profile page caused such a major disruption within the school, that it was punishable by the school district. According to the school district, “the page was repeatedly accessed by students at school and forced the school to shut down its computer system for 5 days” (Hinduja & Patchin, 2011, p. 75). Interestingly, the federal review court, in 2007, argued in favor of Layshock because the school district could not specify exactly which profile led to the disruption on campus (Hinduja & Patchin, 2011). The

court also found that the disruption was not substantial and did not “undermine the school’s basic educational mission or goals” (Hinduja & Patchin, 2011, p. 75). There is much gray area in terms of defining responsibility and accountability when it comes to students’ technology use outside of school hours and using the S3 framework helps remind students about their rights and responsibilities. There is also an expectation from parents that issues of cyberbullying will be handled promptly. As witnessed by both the *Beussin v. Woodland* and *Layshock v. Hermitage* cases, there are many factors at play affecting the rights of students and school districts. It is clear that schools need clearly defined policies as to what constitutes cyberbullying. However, legislators are faced with the task of how to craft a law that protects students but does not overly restrict speech (Hinduja & Patchin, 2011), while administrators tackle the social–emotional drain of cyberbullying on students and navigate the murky waters of cyberbullying law.

Many instances of cyberbullying happen within students’ peer groups, which is in keeping with the literature that has acknowledged that cyberbullying is most likely to happen with peers, rather than with strangers (Kowalski & Limber, 2007; McQuade & Sampat, 2008). Cyberbullying creates social–emotional issues that should be dealt with in a way that best fits the needs of a school’s culture.

Keelan (2020) advocated for additional cyberbullying support for schools, especially considering increased social–emotional issues due to the COVID-19 pandemic, when many children spent considerable time in isolation and traumatic experiences. Scholars have suggested that students should learn and practice respectful behaviors, directed toward influencing social norms, and focus on digital citizenship efforts, instead of focusing on the harms or dangers of cyberbullying (Jones et al., 2011; Nickerson et al., 2014; Perkins et al., 2011; Polanin et al., 2012; Salmivalli & Voeten, 2004). Therefore, bullying prevention means prioritizing community

building, but bullying prevention should also be accompanied by a strong social–emotional learning component (Keelan, 2020). Because of the pandemic, many children have experienced more anxiety, depression, trauma, and fear than ever before; as a result, cyberbullying is likely to increase and target those who are more vulnerable to meet their own need for power (Keelan, 2020). Parental support is not always guaranteed either, so schools must lean on school resource officers and harness the power of a close-knit community to help support students who are dealing with issues of cyberbullying.

A strong sense of community and support, in addition to adequately trained teachers and staff are necessary for students who may come to them for help. The feeling of community is also synonymous with a feeling of connectedness, which reduces the prevalence and impact of violence, bullying, and victimization (Arango et al., 2018; Duggins et al., 2016). Elementary schools have largely used positive behavioral interventions and supports for addressing behavioral issues among elementary school students, and an evaluation of the School Wide Positive Behavioral Interventions and Supports program found it was moderately effective at improving school climate in middle school settings, but not school safety (Young et al., 2009). Therefore, it is necessary to look at additional ways to build community, trust, and support. Certainly, student safety is a top priority and it is worthwhile to pursue a schoolwide initiative to not only respond to issues of cyberbullying but to help address the underlying cause, and the social–emotional reasons behind the cyberbullying. Scholars have promoted the use of restorative practices to promote positive behavior and address bullying and showed it effective at improving the school climate and connectedness, peer attachment, social skills, and reducing cyberbullying victimization (Acosta et al., 2019). Digital citizens can use the S3 framework principle of safety to define what is safe in the online world and understand the harm that can

happen without a full understanding of both the dangers and opportunities afforded by digital spaces (Ribble & Park, 2019).

### ***Online Safety and Protecting Private Information***

A part of being safe means protecting private information and requires the S3 framework principle of being safe to ensure that digital citizens understand the necessity of protecting and keeping materials safe from harm (Ribble & Park, 2019). Safety also means engaging in the elements of digital citizenship related to digital security and privacy, which focuses on electronic precautions to guarantee safety (Ribble & Park, 2019). There are concerns over falling for online scams, having account information compromised, and giving away private information. Fake websites and apps often appear authentic, making it increasingly difficult for users to realize they may have compromised their private information.

The topic of privacy has come to the forefront of public policy as a way to manage the dangers associated with increased growth of digital environments (Auxier et al., 2019; Draper, 2019). However, developmental research has not extensively addressed how children acquire privacy skills (Livingstone, 2014). It is not exactly clear how students acquire privacy skills, although students seem to rely on parental guidance. Students tend to share general online safety and privacy tips that they heard repeatedly such as “Don’t give out your phone number to a stranger.”

Research also has not clearly established connections between many privacy practices and reductions in harm to youth (Finkelhor et al., 2021). However, privacy has become part of the discussion about dangers to children and their safety, particularly dangers from sexual exploitation, bullying, and harassment (Information Commissioner’s Office, 2018; Lapenta & Jørgensen, 2015). There is also disagreement about what constitutes privacy (Peter &

Valkenburg, 2011; Petronio, 2002; Solove, 2015). Privacy has been found to be an abstract concept and can vary based on one's personality or experience (Christofides et al., 2009; Selwyn & Pangrazio, 2018) and one's culture (Soffer & Cohen, 2014). Privacy is really about protection from the different harms to people's safety, reputation and interests (Shin et al., 2012). Due to varying definitions of privacy, it is difficult to provide meaningful and consistent messages that support a wide range of views on privacy.

Research has shown the ineffectiveness of privacy skills to manage online safety risks. However, there is a need to support students in safe social media use and establish appropriate parameters for safe use such as thinking about whether it is appropriate to post. Should students friend or connect with anyone who asks? How do students protect access to their accounts so they are not public (Gonzales, 2017)? Other scholars have suggested that many online acts of exploitation occur not with online strangers but with people children know. Therefore, telling students to avoid posting personal identifying information or pictures and texting with strangers may not be effective in avoiding this harm. Additionally, warning youth of the dangers of giving out personal information can reinforce their feeling that the danger is with strangers, causing them to misunderstand the risk and undermining efforts to improve overall safety awareness and skills (Finkelhor et al., 2021). Studies have not found that sharing information online is associated with sexual solicitations (Wolak et al., 2008; Ybarra et al., 2007). Interestingly, other scholars have suggested that the use of overly vague statements like "don't give out personal information" may cause youth to become insensitive to or scornful of advice from the adult source (Wisniewski, 2018). Vague or generic warnings do not connect privacy rules or actions to specific harms, causing youth to miss the purpose of the rule or its importance. As an example, the statement "don't share your password" does not become real until one learns that someone



might use your password to steal money from your bank account (Kumar et al., 2017). Additionally, Finkelhor et al. (2021) found that telling students not to give out their name or address as a general rule might not prevent childhood harm. Digital citizens can use the S3 framework component of safety to think about the transferability of safety skills from the real world to the digital world as “in the real world we lock our doors and protect what we have inside” (Ribble & Park, 2019, p. 44).

### **Savvy Principle of the S3 Framework**

#### ***Accountability to Care for Devices***

Responsibility for caring for a device involves the S3 framework principle of being savvy and part of being savvy means having digital fluency skills which means that students have learned the skills of using technology appropriately (Ribble & Park, 2019). However, students do not always care for their devices, often times losing their devices, or returning devices back to school damaged or with pieces missing. There is little accountability on behalf of students or their families for the damaged or missing devices. The accountability to care for devices also involves thinking about the element of digital law which involves the creation of rules and policy to address issues related to the online world (Ribble & Park, 2019). Largely, the creation of rules and policy of the acceptable uses of technology have been covered in AUPs, which are written contracts that list the terms and conditions of acceptable uses of Internet for schools and classrooms (Ribble & Park, 2019). In 2001, the FCC implemented CIPA, which tied compliance with acceptable uses of Internet to substantial funding through E-Rate funds and required all schools to have an Internet safety policy in place (Ribble & Park, 2019).

Sauers and Richardson (2019) and Ribble and Park (2019) suggested that AUPs are disempowering to students; they “tend to be outdated and rigid, lack specificity and robustness,

and serve to cover the legal issues inherent with children using technology” (Sauers & Richardson, 2019, p. 27). Little attempt has been made to adapt past policies for high-technology-use schools and one-to-one environments (Sauers & Richardson, 2019). AUPs should address mandatory legal issues but would benefit from the addition of details about ways to empower students and staff, as well as addressing inappropriate usage, including physical issues related to device usage (Sauers & Richardson, 2019). Key elements of AUPs should include expectations for device and account passwords as well as expectations for device responsibility and care, including sharing, loss, damage, theft, and insurance (Trach, 2013). Sauers and Richardson (2019) also recommended that an empowered AUP focus on responsibility and address how students are educated on device maintenance and care.

Ribble and Park (2019) found AUPs to be highly legalistic and negative and have suggested schools use EUPs instead. However, schools are only just beginning to reframe their technology use policies to focus on responsible use (Schrum & Levin, 2015). There is little peer-reviewed research related to integrating responsible use into AUPs (Sauers & Richardson, 2019), which would also include student responsibility and accountability of devices and accessories. EUPs can be used to provide students opportunities to show a greater sense of responsibility and ownership for their devices. Teachers can use EUPs, in conjunction with the S3 framework principle of being savvy to empower users to become responsible users of technology, including taking care of their devices. Sauers and Richardson (2019) have also suggested that the use of empowering RUPs also fosters constructive digital citizenship habits for students.

### ***Functionality and Capability of Technology***

Part of understanding the functionality and capability of technology requires the S3 framework principle of being savvy. Being savvy means users have digital fluency skills. “Users

need a good grounding in the basic skills of the technology tools they are using, as well as how to help others become more proficient” (Ribble & Park, 2019, p. 47). Students often have a limited understanding of the benefits of technology, as well as lacking exposure to technology skills in a sequenced, skill-building manner. Previous research on technology integration has shown that the integration of computer technology into the curriculum was poorly planned and that teachers were poorly trained in technology integration as well (Wright & Shade, 1994). Other scholars previously noted that teachers did not fully understand the role technology should play in learning (Fuller, 2000; Loveless, 1996). More recently, Tamin et al. (2011) found that educators face attitudinal, sociocultural, and pedagogical barriers to technology integration despite the demonstrated positive impact of technology integration on academic achievement.

Durff and Carter (2019) posited that administrators need to show that they value the use of technology for educational use. Durff and Carter suggested that change can be unsettling for teachers largely because both hardware and software are continually changing, and constant change presents a barrier for some teachers. Teachers’ varying levels of comfort with technology influences their willingness to incorporate technology and teach digital citizenship skills to students. However, Ribble and Park (2019) put forth that schools have a responsibility to help children understand how to use technology in the home, in school, and in the larger community and that not all children come to school with technology knowledge. Durff and Carter found that despite continual changes in technology, realizing the benefit of technology for students helped teachers overcome pedagogical barriers such as personal attitudes, the surrounding society including the school culture, and the cultural landscape. Teachers who successfully overcame pedagogical barriers were able to adapt to the continual changes presented by technology (Durff & Carter, 2019).

Students may not understand the capabilities of technology and do not fully understand the educational benefits, because students may be lacking opportunities to learn technology skills. Eisenberg et al. (2010) found that teaching technology skills in isolation or as part of a separate computer class does not allow students to apply technology skills in meaningful ways and that the end goal is not just how to operate technology, but to be able to use it as a tool for organization, communication, research, and problem-solving. Ribble and Park (2019) put forth that teachers should help students to become “good stewards and users of technology tools” (p. 49). Schools need leadership for technology integration, time, and professional development for teachers so that students have the opportunities to gain a perspective on the value of the functionality and capability of technology hardware and software.

### ***Digital Footprint***

The concept of a digital footprint extends to the S3 principle of being savvy. Being savvy means taking ownership of digital choices to educate oneself as well as others (Ribble & Park, 2019). Users need to think about digital communication and collaboration and the information that they are sharing (Ribble & Park, 2019). Digitally fluent users are more likely to make good decisions online (Ribble & Park, 2019). Users that have digital fluency skills understand that posting content online leaves behind a trail of information. Students need to develop an understanding of the responsibility associated with one’s digital footprint and should understand that actions and words online are a part of their digital footprint, affecting students’ digital lives. As such, students’ social media, their cell phones, their online friends, are no longer something separate from students; it is part of who they are. Students need to think about the S3 framework principle of being savvy as students do not always understand how to control the amount of information they share through their social media, thus risking their online safety, and harming

their digital footprint. A digital footprint is about more than just how to protect privacy; it is also about self-reflecting before self-revealing, which affects how students present themselves online (Martin et al., 2018).

Researchers of responsible use and digital footprints suggest that for students to be able to demonstrate online responsibility, they need to have a teacher model it for them through a professional online presence (Lowenthal et al., 2016). Proper modeling may help students who may otherwise believe that if they just deleted their online conversations on apps like Snapchat, that they were free of being caught. However, it is difficult for students to grasp the concept of how something they are doing now could harm their future selves. Research also suggests that students do not fully grasp all the ways in which they leave a trail of information behind and that they should be aware of privacy policies and how their personal information is being used (Grayson, 2011; Malhotra et al., 2012; McDermot, 2018). Teachers are caught in limbo between their students' existing social uses of the Internet and their sense of responsibility to protect students both online and offline (Luke et al., 2017).

There is disagreement among scholars on how to teach students how a digital footprint can affect their future selves. Facer (2012) suggested that by focusing exclusively on the negative aspects and dangers of the Internet, children become passive and vulnerable consumers of digital culture. The S3 framework also says that students need to think about being savvy and having the skills and knowledge to make good judgments and responsible choices (Ribble & Park, 2019). Additionally, Buchanan et al. (2018) suggested that a digital footprint is more than an online presence; it is a purposefully created set of skills, communication, and curation over which users have control. Teachers can help students in establishing online identities, building skills, and engaging in digital social worlds and communities (Boyd, 2014). Teachers can guide

students in learning about what information to keep private and what information is acceptable for a public persona. Although there are a great number of benefits associated with thinking about one's digital footprint, educators must address the salient issue of children's developmental stages and abilities to grasp the abstract concept of a digital footprint. Children may lack the maturity to grasp the long-term consequences of their online actions (Buchanan et al., 2017). Feher (2021) proposed online users reflect upon a higher level philosophical question, "Who am I online?" K-5 students may struggle with this higher order thinking question, yet Feher believed asking this question was an important part of understanding the changing technological environment that shapes society and culture. Students are not always thinking about all the ways in which they leave behind a trail of information about themselves. However, a digital footprint is nearly impossible to erase so it is important to know how you want to be seen today and in the future.

### ***Finding Reliable Resources***

Finding reliable sources of information online requires the S3 framework principle of being savvy. A significant part of being savvy involves having digital fluency or media literacy skills (Ribble & Park, 2019). Digital fluency means that users have the ability to discern good information from poor (Ribble & Park, 2019). The Internet has become the main information resource for students (Livingstone et al., 2018) and as such, students need to learn critical evaluation skills during their early school years (Leu et al., 2015). However, research has shown that students do not spontaneously evaluate webpages (Paul et al., 2017). Researchers found that teachers spend much time on how to reason with the information found, but little time on guiding students in finding reliable sources of information (Carlson, 1995). Teacher led interventions and instruction in how to select valid sources of information should be part of critical thinking skills

but are rare in elementary schools (Brand-Gruwel & van Strien, 2018; Brante & Strømsø, 2018; Carlson, 1995). Most research on instructional methods geared toward evaluating the credibility of online sources of information has been conducted among students in upper secondary or higher education institutions (Bråten et al., 2019).

Students also tend to rely on teachers to help determine which websites to use to find information and answers to the questions they are seeking, but they lack the ability to determine if online sources are biased or contain misinformation; students more or less accept the information at face value. Researchers found that users tend to accept content at its face value as it is human nature to believe sources, and the way in which people process information leads to over-believing (Koehler, 1991). Being savvy and having media literacy skills is important as adolescents tend to overestimate their ability to judge sources of information and accept information at a superficial and uncritical level (Coiro et al., 2015; Macedo-Rouet et al., 2019). There is also a tendency to engage students in traditional methods emphasizing a single text or source of information, as opposed to processing multiple sources for conflicting views (Macedo-Rouet et al., 2013; Paul et al., 2017). Frerejean et al. (2018) argued that the modeling of skills was the single most effective method for teaching novices and that they benefited from active practice with the strategies that were modeled for them. Students need consistent practice in using the strategies that were modeled for them (D. Fisher & Frey, 2015; Frerejean et al., 2018) and teachers can use the S3 framework to integrate digital fluency and media literacy skills into the classroom (Ribble & Park, 2019).

## **Social Principle of the S3 Framework**

### ***Healthy Connections and Relationships***

Healthy connections and relationships online means engaging with the S3 principle of being social. Being a responsible digital citizen means knowing how to build healthy connections and relationships in order to expand understanding and empathy for others. Having healthy connections and relationships allows digital citizens to think about the greater responsibility beyond themselves as part of a larger, global community. Healthy connections and relationships require users to engage in digital communication and collaboration so users can find their voice and express themselves and others can understand the message being shared (Ribble & Park, 2019). Digital etiquette is also a critical part of building healthy connections and relationships online as it helps users understand the standards of conduct and how users should interact with others in a digital society (Ribble & Park, 2019). Ribble and Park (2019) put forth that having digital fluency skills is another part of building healthy connections and relationships with others online because those who are digitally fluent are more likely to support others online instead of making negative comments.

Establishing healthy connections and relationships online helps enrich and broaden one's perspectives in big and small ways. Having healthy connections and online relationships also allow users to have connections to a community when not otherwise possible due to circumstances such as separation by physical distance or other circumstances, such as lockdown during the COVID-19 pandemic. The need for digital communication has been more important than ever during the COVID-19 pandemic, in which online learning has increased and the nature of schooling has evolved (Sekulich, 2020). A sense of community and the interaction between students and teachers was also supported in the literature, supporting that the interaction and



sense of community to a large extent determines the quality and outcomes of online learning and ultimately the learner's ability to master course content and improve critical thinking, problem-solving, and communication skills, the hallmarks of higher education (Association of American Colleges & Universities, 2013, 2015, as cited in Andrade, 2015, p. 2).

The S3 framework social principle can be used to help develop healthy connections and relationships by helping users gain a sense of responsibility to learn about safety and respectful behaviors to gain a deeper understanding of tools, resources, and information that can help people connect with one another, information, and resources. Being social also means that users know how to be positive and encouraging within the online community. Online interactions support collaboration within the online learning community as learners begin to see themselves as part of a community rather than being on their own (Andrade, 2015; Sekulich, 2020). Healthy relationship connections help people think about more than just themselves. They begin to see themselves as part of the bigger, global community.

### ***Showing Kindness***

The S3 framework principle of being social is about exemplifying a commitment to respecting oneself and others and has to do with relationships and connections with others. Being social involves having digital etiquette, which reminds users to have an awareness of others (Ribble & Park, 2019). Children engage with digital etiquette to learn how to interact with others online. Part of being social involves showing kindness and having a sense of standards of conduct or procedures, or digital etiquette (Ribble & Park, 2019). Research about kindness has largely focused on understanding the effects of being kind on student well-being; however, research on how students understand and specifically conceptualize kindness is lacking (Binfet & Passmore, 2019; Layous et al., 2012). Researchers emphasized the prevention of unkind and

antisocial acts, such as bullying, rather than the promotion of prosocial behaviors such as kindness (Pryce & Frederickson, 2013; D. J. Smith, et al., 2004). Therefore, investigating students' conceptualizations of kindness is especially important (Binfet & Passmore, 2019). Binfet and Passmore (2019) conducted a study with fourth through eighth graders and asked them to define kindness. The study revealed kindness was about helping, showing respect, and encouraging and advocating.

Additionally, Binfet and Passmore found that fourth and fifth grade participants responded that kindness was about helping versus respect; whereas the kindness examples provided by eighth grade participants were more likely to reflect the theme of showing respect than helping. It was also interesting to note that 21% of participants were unable to provide a specific definition of kindness, and instead gave generic definitions (e.g., “be nice,” “don’t be mean”). The findings of Binfet and Passmore are consistent with Piagetian developmental theory (Piaget, 1932/1965) and Baldwin and Baldwin (1970): that children’s conceptualizations of kindness become more differentiated and complex as they mature. Kindness is integral to forming and maintaining social relationships that are vital to a healthy, flourishing human life (Binfet & Passmore, 2019), so understanding the multifaceted ways in which students define kindness is critical to supporting students’ social and emotional learning and growth. Understanding students’ definitions of kindness is also critical for informing programs or interventions to increase the frequency of kindness among students or enhance the nature of kind acts (Binfet & Passmore, 2019).

### ***Meaningful Lessons and Discussions***

Meaningful lessons and discussions are important to engage students and involve the S3 principle of social. Being social acknowledges the element of digital access and the fact that

everyone should have full electronic participation in society (Ribble & Park, 2019). Teachers can provide meaningful and rich technology lessons for students who may lack home access.

Teachers should recognize that not all students have equitable experiences with technology and should work towards bringing meaningful experiences to students (Ribble & Park, 2019). Ribble and Park (2019) distinguish between learning digital citizenship and learning *through* digital citizenship in ways that are meaningful for students instead of as a stand-alone technology topic. Teachers use various approaches such as learning about students' interests, to relate to students and make learning meaningful for them. Zittoun and Brinkman (2012) acknowledged the benefit of meaningful lessons and suggested that learning involves identities and emotions and that meaning making happens when learners are actively engaged and establish a meaningful relation to the subject matter by using previous knowledge and experience to process and interpret different situations, events, objects, or discourses. Cultural–historical psychology, pragmatism, constructivism, and social constructionism perspectives have all emphasized the fact that meaning making creates ideal learning conditions (Zittoun & Brinkman, 2012).

Meaningful lessons contain rich opportunities for sharing and discussion. Social learning, was also supported by Vygotsky (1978), a social constructivist who believed learning was a social process in which learners developed understanding through interaction with the environment around them. Vygotsky believed meaningful learning happened when learners were able to explore concepts of interest to them and discuss the meaning with others. Willingham (2009), a cognitive psychologist, studied thinking, learning styles, learning-style theories, and meaning making; his findings have significant implications for learning and meaning making with students. Willingham stressed that teachers must design lessons to ensure that students are thinking about meaning, as students will retain content if it is meaningful. A teacher can create

an emotional bond with students by interacting with and engaging them. Thinking and meaning making helps students apply their learning after the school day is over. The S3 framework social principle may be used to help teachers create meaningful digital citizenship lessons so all students have the opportunity to have full electronic participation in society and are empowered to create, learn, and explore the digital world (Ribble & Park, 2019).

**Table 5.**

*Findings in Relationship to the S3 Framework*

S3 Framework Principle	Nine Elements of Digital Citizenship	My Findings
Safe	Digital Etiquette Digital Health and Welfare Digital Rights and Responsibilities	Online Safety and Cyberbullying
	Digital Communication and Collaboration Digital Etiquette Digital Security and Privacy	Online Safety and Private Information
Savvy	Digital Fluency Digital Law	Accountability to Care for Devices
	Digital Fluency	Functionality and Capability of Technology
	Digital Communication and Collaboration	Digital Footprint
Social	Digital Fluency	Finding Reliable Sources
	Digital Communication and Collaboration Digital Etiquette Digital Fluency	Healthy Connections and Relationships
	Digital Etiquette	Showing Kindness
	Digital Rights and Responsibilities Digital Access	Meaningful Lessons

## **Recommendations for Future Research**

Future researchers should build upon the findings within my study. The purpose of my study was to explore the perspectives and lived experiences using a transcendental phenomenological approach from K–5 administrators, students, and teachers considering the essential skills and knowledge to become a responsible digital citizen. My study focused on the lived experiences and perspectives of K–5 administrators, students, and teachers within one Central Illinois school district. Future transcendental phenomenological design studies will enhance the transferability of my study by replicating this study with different research participants from a K–5 school district to add to the body of knowledge about the lived experiences and perspectives of K–5 administrators, students, and teachers considering the essential skills and knowledge to become a responsible digital citizen. Future studies should include the perspectives of K–5 parents and pair up parent and child within the same familial unit to gain a perspective on digital citizenship practices between home and at school.

Another suggestion for future research is to further investigate the way in which administrators proactively handle issues of cyberbullying. Both administrators in my study believed cyberbullying was prevalent in schools, and although both administrators dealt with the cyberbullying issues in a prompt manner, the administrators responded in a reactive rather than proactive manner. Researchers should explore proactive digital citizenship K–5 leadership using a transcendental phenomenological approach. Reichert (2019) studied administrators' experiences with cyberbullying to understand the procedures administrators utilize to effectively combat cyberbullying in hopes of decreasing suicidal ideation rates among adolescents. In addition, Moore (2018) studied middle school administrators' perceptions of cyberbullying and the strategies administrators used to reduce cyberbullying incidents occurring in middle schools,

using an exploratory qualitative inquiry research design. However, there are limited studies examining K–5 administrative perspectives on cyberbullying, governing policies, and the future of policymaking, so future studies should gain the perspectives of K–5 administrators.

My study revealed various definitions of digital citizenship within each individual stakeholder group. The lack of a universal definition of digital citizenship could make it difficult for administrators to create an implementable digital citizenship plan. A clear definition of digital citizenship will be needed if schools, parents, and administrators wish to develop RUPs to support students' digital citizenship. Collaborative efforts among staff and administration, along with a vision and support from administration, will help educational leaders to provide a consistent view of digital citizenship and provide teachers with the necessary training and tools to carry out the digital citizenship plan and vision. A future study should focus on K–5 administrators and include district-level administrative leaders such as a curriculum director, director of technology, and district assistant superintendent and superintendent. The combined perspectives of administrators and district leaders may help provide leaders with a clear vision of digital citizenship to implement policy, followed by procedures and teacher accountability. Therefore, school leaders may wish to reconsider the effectiveness of their current AUPs so the policy aligns with the beliefs and vision of the school district. Sauers and Richardson (2019) have suggested that the use of empowering RUPs fosters constructive digital citizenship habits for students, instead of outdated legal jargon focusing on the negative aspects of technology. Future researchers may address the gap in the literature showing how little attempt has been made to adapt past policies for high-technology-use schools and one-to-one environments (Sauers & Richardson, 2019). Future researchers should use a case-study approach in a K–5 school that has implemented an EUP or RUP.

Lastly, I was surprised how strongly the students in my study felt about the importance of finding reliable sources and felt unprepared to do so. Future researchers should research the topic of reliable sources as it pertains to student learning and teacher pedagogy to measure and explore the gaps in learners' knowledge concerning safe and reliable online resources. Future researchers should use an exploratory mixed methods research design to explore the emerging themes from my study and turn the themes into a psychometric instrument to conduct survey research. The emerging themes for administrators included functionality of technology and having an awareness of cyberbullying, showing accountability to care for devices, understanding the concept of a digital footprint, and healthy connections and relationships. The emerging themes for students included finding reliable sources, showing kindness, and online safety. The emerging themes for teachers included meaningful lessons and discussions, and understanding the concept of a digital footprint.

A future study could use a quasi-experimental design to compare two groups of students—one group who received instruction from a teacher in finding reliable sources or evaluating sources for bias and accuracy and one group who did not receive instruction—and compare the results of the two groups.

Based on my research findings, school districts need to prioritize digital citizenship to help students become responsible digital citizens. Schools will be the place where students will learn the skills to become responsible digital citizens, who show kindness, are able to find reliable sources of information, and have online safety skills, which were essential skills identified by the students in my study.

## **Conclusion**

The purpose of my study was to explore the perspectives and lived experiences using a transcendental phenomenological approach from K–5 administrators, students, and teachers considering the essential skills and knowledge to become a responsible digital citizen. This study filled a gap in the literature, as there was a lack of perceptions and experiences about the essential skills and knowledge to become a responsible digital citizen from the perspectives of administrators, students, and teachers (Güven, 2018). I used the transcendental phenomenological research process (Moustakas, 1994) to help me answer the central research question: Through the lived experiences of administrators, students, and teachers, what are the essential skills and knowledge to become a safe, savvy, socially responsible digital citizen demonstrating appropriate, responsible, and empowered technology use?

The findings of my study showed that administrators, students, and teachers all believed digital citizenship was about responsibility. Although teachers were teaching digital citizenship, there was no clear definition of what teachers were doing or how teachers were teaching digital citizenship. I recommend school leaders work with teachers and staff to develop a common and consistent definition of digital citizenship, as each teacher in my study independently taught or shared what was relevant based on her own views and experiences. For example, Samantha felt that students were interested in creating and sharing YouTube content, and so she created a lesson and discussion about online etiquette and how to comment respectfully.

Both administrators in my study shared their experiences concerning digital citizenship issues, such as cyberbullying, yet most of the administrators dealt with issues in a reactive, not proactive way. It seemed that both administrators and teachers felt responsible to help students become responsible digital citizens, yet there was no formal digital citizenship plan in place or



administrative vision for digital citizenship in place to support teachers. This study has defined digital citizenship and has provided information about the essential skills and knowledge to become a responsible digital citizen from the perspectives of K–5 administrators, students, and teachers, helping school districts to prioritize digital citizenship so that students become safe, savvy, and socially responsible digital citizens demonstrating appropriate, responsible, and empowered technology use.

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## APPENDIX A: CALL FOR VOLUNTEERS

Participating in this voluntary study may help provide future educators, administrators, librarians, as well as inform the field of library science with insight to help students become safe, ethical, and responsible users and creators of technology. For more information please contact Karen Riccio [kjricci@ilstu.edu](mailto:kjricci@ilstu.edu) or 309-310-4448

# Volunteers Needed for a Study on Digital Citizenship

Has remote learning opened your eyes to a whole new set of needed digital skills? You may be eligible to participate in a study to positively impact students! You may qualify if: you are an administrator, student, or teacher who has experience with the knowledge and skills needed to become a responsible digital citizen at the K-5 level.

#### Participation Involves:

- One 45-60 minute interview over Zoom at a mutually agreed upon time convenient for you
- Responding to three digital journal prompts
- Creating a digital story using Adobe Spark



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## APPENDIX B: JOURNAL PROMPTS

### **Journal Prompts for Administrators and Teachers**

#### **Digital Journal Prompt #1 Beginning (Prior to interview)**

Please respond to these journal prompts one week prior to your interview.

What does digital citizenship mean to you?

What do you need to know in order to be a responsible digital citizen?

What skills do you need to have or learn in order to be a responsible digital citizen?

#### **Digital Journal Prompt #2 Follow up (Post-interview)**

Please respond to this journal prompt before starting your digital story.

Go in depth about a time in your life when you experienced being safe, savvy, or social online.

#### **Digital Journal Prompt #3 Reflection (Conclusion)**

Please respond to these journal prompts at the conclusion of our project.

What do you need to know in order to be a responsible digital citizen?

Reflect on your participation in this study, what are some of your biggest takeaways? In order to teach digital citizenship to your students, what skills do you need to have or learn to help students become responsible digital citizens?

## **Journal Prompts for Students**

### **Digital Journal Prompt #1 Beginning (Prior to interview)**

Please respond to these journal prompts one week prior to your interview.

What does digital citizenship mean to you?

When you are interacting online what are some things for you to be aware of?

Is it important to be a responsible digital citizen? Why or why not?

What will it take for students like you to become responsible digital citizens?

### **Digital Journal Prompt #2 Follow up (Post-interview)**

Please respond to this journal prompt before starting your digital story.

Go in depth about a time when you were interacting with peers online in a positive way.

### **Digital Journal Prompt #3 Reflection (Conclusion)**

Please respond to this journal prompt at the conclusion of our project.

What have you learned that will help you become a more responsible digital citizen?

## APPENDIX C: INTERVIEW QUESTIONS

### **Interview Questions for Administrators**

1. What does digital citizenship mean to you?
2. Tell me about the skills you think are essential in order to become a responsible digital citizen.
3. In your perspective, describe the knowledge required in order to become a responsible digital citizen.
4. Think about a time when you experienced digital citizenship as an administrator, what was that like?

### **Interview Questions for Students**

1. What does digital citizenship mean to you?
2. Tell me about the skills you think are essential in order to become a responsible digital citizen.
3. In your perspective, describe the knowledge required in order to become a responsible digital citizen.
4. Think about a time when you experienced digital citizenship as a student, what was that like?

### **Interview Questions for Teachers**

1. What does digital citizenship mean to you?
2. Tell me about the skills you think are essential in order to become a responsible digital citizen.

3. In your perspective, describe the knowledge required in order to become a responsible digital citizen.
4. Think about a time when you experienced digital citizenship as a teacher, what was that like?

## APPENDIX D: CREATIVE SYNTHESIS

Participants will use Adobe Spark to create a digital story representing the essential skills and knowledge to become a responsible digital citizen. Participants may use their created drawings, images, text, and voice to create a creative synthesis product (i.e., digital story, digital logo, social media post, and digital poster).



## APPENDIX E: DIGITAL CITIZENSHIP DEFINED BY ADMINISTRATORS

Participant	Theme	Invariant quality	Significant statement
Philippe	Being responsible	Devices and accessories	Students don't understand the cost, and many times the kids aren't paying any anything for the technology that they're provided and, in turn, they don't respect it.
			Students don't take care of their devices, which means it comes back damaged or there's pieces lost or and there's really no accountability for that.
	Being safe	Avoiding cyberbullying	Many times the cyberbullying happened through district technology but also through students' own personal technology or through their phone. You know like Snapchat, there are different platforms that kids found ways to maneuver and then, consequently, students thought since their conversations weren't saved, that they were free of being caught.
			There are ways of being caught and how that happens, so I think accountability, as a principal is critical. I contacted families and often had families come into school and talk about it. I had the evidence there and if from there it continued, I contacted the police. I encouraged the victim's family to file a report against the bully.
			Bullying is not something I tolerate. I have very little tolerance, or any, for bullying.
			I think bullying has to be addressed immediately. I am very upfront and transparent with all of my kids and parents that anytime I get a report of a child being bullied whether it's through any platform or whatever, it is going to be addressed right away.
	Online safety		Part of it is not being enticed to go into and search for things that are not appropriate. It's about being ethical and what it means and following through with that.
			I think we get caught up in all the negative things happening with technology, but you've got responsible kids out there that want to do good but, again, sometimes kids just want to fit in so they use the Internet irresponsibly or to search for things they should not.
	Trusting who you are communicating with		It is hard for me to trust people and know they aren't using my information.
			I do use social media to stay connected with family and friends. I feel safe using it. I have been able to reestablish friendships with college and high school friends. Facebook has also allowed me to reconnect and stay in contact with friends and family.
Knowing the functionality of technology		I don't think there's enough time spent with kids to really show them the functionality of technology and what it has to offer, and how it can really when used appropriately and responsibly to really make some of their things easier in life.	
		I just think kids are misguided in what technology is used for.	
		Teachers as well need to understand the capabilities of what technology can do for their instruction as well as how they can utilize it to enhance their curriculum.	
Recognizing the benefits of technology		My youngest son has no idea really about the benefits of different like PowerPoint or making spreadsheets or anything like that.	
		I don't even know I think a lot of our families don't even know the capabilities of what technology has to offer, they just know they can search something and find it.	
			We assume students understand how to use technology responsibly and assume that they understand all the capabilities that it has to offer when used in the correct way.

Participant	Theme	Invariant quality	Significant statement
Lucile	Being responsible	Building healthy connections	<p>One of the biggest components of digital citizenship for me is building healthy connections and relationships in order to expand our understanding and empathy for others.</p> <p>The social connections I have been able to make are global and influential in both big and small ways. Over the past years, I have been able to keep in touch with friends and family who live both near and far, even across the globe. I can follow the adventures of former students, relatives, friends, and even people I don't know.</p>
		Showing empathy to others Online safety	<p>I think about my son, who just turned 15, and was home by himself most of the time during the pandemic and how his connection to a digital community helped him stay mentally well like that is how he connected with his friends and his family when he couldn't see them in person.</p> <p>There is a sense of critical thinking about your online interactions and the potential impact they may have on yourself and others.</p> <p>Digital citizenship is broader than don't share your name and password with people. I feel like people think of that part that like don't share your private information and that's very, very true but keeping passwords safe, that's basic level. Students need to know how to create passwords that are not easily hacked. There is more to it than that.</p> <p>I also feel like when I grew up there was no Internet, there was no any digital community at all.</p>
	Being safe	Recognizing a digital footprint	<p>I've seen the birth of all of this technology and the development of it, and until now, we used to be so afraid, but we have to change our thinking now.</p> <p>Students need to know how to share enough of themselves to build a community, but not so much that they're not in that safety zone.</p> <p>I think for our students a digital footprint is no longer something sort of separate; it is part of who they are. Their cell phones are part of who they are.</p> <p>Their online social media is part of who they are, even our younger kiddos as young as maybe third or fourth grade even use social media.</p>

## APPENDIX F: DIGITAL CITIZENSHIP DEFINED BY STUDENTS

Participant	Theme	Invariant quality	Verbatim statement
Ava	Being responsible	Finding reliable sources	This is important so you can do better on your homework because you know you are getting good information.  If you use reliable websites you are getting accurate information and you can trust it.
		Thinking before doing	Always read carefully to make sure it's a safe website. If it's not then just don't go there. If you don't know how then you should ask a safe adult to help you.
		Showing kindness to others	It's important to think first because if you don't you might say something you regret and then you can't take it back. Be kind in the world.  Even if someone says something mean online or scams, you should stand up for yourself and others and be kind. Someone else might see you doing that and then they will do that.
		Being respectful	Showing empathy to others Kids need to know they should just be nice on the Internet. You never know because someone could be having a bad day and that's why they are being mean. So just don't be mean back to them.
Eleanor	Being responsible	Finding reliable sources	If you're doing a book report on something and you are talking and your teacher explains that is definitely not what happened, or something like that...so you want to know if everything in your book report is actually true.
		Being a critical thinker	You have to ask yourself if the information makes sense and don't just get everything from one source.
		Following copyright	I learned it's important to check to see if the photos I want to use online are legal to use.
	Being respectful	Performing advanced online searches	Google has an advanced search that helps you narrow your search. You can use that to help you find a more trustworthy source.
		Not arguing with others online	This doesn't really happen to me online, but I know it happens a lot kids need to like be aware of not getting into an argument with people or not saying hurtful or mean things. You could politely disagree with them or not say anything at all.
	Being safe	Avoiding strangers online	Don't give your address, and phone number out to a random person. It is definitely being irresponsible giving like a phone number, an address, or even your real name to someone you don't know online.  When I am interacting online some things that I like to be aware of is mainly who I am talking to. If I was playing a video game that lets people talk to each other and someone with a username that I don't recognize wants to talk with me I would log off because that person could be anybody.
		Focusing on meaningful projects online	I don't really use the Internet at home and at school I pretty much stick to the websites my teacher tells me are safe.  I think the Internet is just kind of stupid and why would you want to watch people bully each other when you could read a book?

Participant	Theme	Invariant quality	Verbatim statement
Leon	Being responsible	Avoiding online scams	There are scams in app stores like when you pay for it and then you give away your email address and payment to random people online sometimes it's a scam game. It says it's real but it's not and you get done out of the real game and money too.
		Protecting private information	Kids sometimes give away their email without thinking. I did it too... sometimes I gave away my email from when I was younger...then I got bombarded with junk mail...and it was weird and scary. They kept sending me messages. So now I am careful about what I do. I had to delete that email account.
		Finding reliable sources	One time in school we did a report on climate. My teacher gave us the websites to use. I was glad because I don't think I would have found good information otherwise or I would have gotten scammed. It's really hard to know. There is so much information out there, and a lot of it is bad so you need to find out what you can trust.
		Showing kindness to others	I really do this a lot when I see someone being mean or bullying, I'll like stand up for them.
		Being part of an online community	You have to be responsible. As a matter of fact, if they are bullying then I will step in for them. In Roblox, this person bullied over and over to someone. They said "you look like a rat!" I responded, "no that's mean, don't say that." Then they said I was a little kid and I should go away.
	Being safe	Being a critical thinker	A lot of times, before, I just got really excited and went too fast. Then I ended up in trouble. Kids need to read carefully and ask a parent to help them if they don't know.
		Being cautious online	Sometimes it is really exciting when you are doing something. Like this time I didn't see it said "Rooblox" instead of "Roblox" it was a fake. I was excited to login and trade with someone that I didn't think. The websites make it really easy to try and trick you. They make it look so real.
		Seeking help from a trusted adult	Teachers help give us safe sites to stick to and to learn from. If I don't know what to do I'll ask a teacher for help. At home, I ask my mom for help.

## APPENDIX G: DIGITAL CITIZENSHIP DEFINED BY TEACHERS

Participant	Theme	Invariant quality	Verbatim text
Margaret	Being responsible	Accepting responsibility	<p>I think there are two facets to digital citizenship; the facet of accepting that you are a digital citizen and the facet of then acting on what that means. I think a lot of times kids, but also adults there's a nonacceptance of the fact that they have a responsibility with their technology and how they use it.</p> <p>There is always surprise when I have a conversation with my kiddos with some of the things I say, for example, the recording of minors and disseminating recorded video of minors. You know, they're like... what? I'm like no... I can't put a video of you up on social media or anything like that without permission, and you can't be doing that... you can't video whoever you feel like. It's like now that they know, do they accept that responsibility? We owe it to students to at least present things to them and then, if they still act inappropriately with digital media, that's where they haven't accepted their digital citizenship.</p>
		Consequences for lack of responsibility with technology	<p>I'm of the mindset that I want to try to get students to do the right thing, like I don't want to punish by taking away their device because then they don't learn, you know? They just learn that they got caught.</p> <p>One fourth grader in particular had different computer assisted practice software that they go on. I watched him, one day, and he could not stay on one tab. He went from one tab and then opened up another tab and then he opened up another one and another one. I would try to redirect him, and it would just happen again, and it was always whatever he wanted to be on.</p> <p>So, then the extreme is the students lose their privileges, but then the weight on the teacher then... like I should just give them paper and pencil stuff to do, but if I'm worth my weight as a teacher, I have created digital things that are not easily transferable to paper pencil.</p>
	Redefining digital citizenship	Helping students recognize the impact of their digital footprint	<p>All of this stuff that we have to deal with in the classroom making sure they don't bully then becomes even more discreet and more secretive when you add digital media to it so yeah I sound like I'm like not a fan of the social media but I am, but it's dangerous without teaching what the right thing is.</p> <p>I tell students there are things that I didn't even know that companies are gleaming about you from something that seems so benign. I would say students need the knowledge that what they do online is part of that footprint and it's something awesome, then fantastic, and if it's not, it's not going to go away then that's not awesome.</p>
		Protecting private information	<p>I don't think parents really understand all of the apps that are out there, and all of the different ways, all the different temptations for their kid to not be a good digital citizen.</p> <p>We have to keep on top of these things, like when I came into teaching, someone could say they weren't good with technology or that they don't use technology. We don't have that luxury anymore to just say I'm not good with it, I don't use it. We're giving kids really expensive pieces of equipment and giving them the world at their fingertips and we've gotta teach them how to do that well.</p>
Being safe	Being aware of stranger danger Issues with cybersecurity	<p>As teachers, we are compelled to still help students stay safe, but the ways their privacy could be compromised is varied. We also must teach them the type of identity they want to present to the world.</p> <p>It's very easy for students to turn their devices on and then not get sufficient amount of sleep or have run ins, with people who are on things later at night. If anything requires you to download something, you are giving them a lot of access, but kids don't always they don't always think that through.</p> <p>And websites that have a lot of pop up ads and such... I think that it's interesting to watch students when they get blocked. Like they're just testing the limits, you know, but they won't always have something that blocks, so they really need to understand.</p>	

Participant	Theme	Invariant quality	Verbatim text
Margo	Being responsible	Helping students recognize the impact of their digital footprint	Technology is just so rapidly changing and who knows what it will even look like in five years, let alone when my students are adults so it's important for kids to understand their digital footprint, it's just so hard for them to grasp right now.
		Media balance and self-regulation	I've played this game for this many hours like that's a skill too like knowing when you know what I played, even if my parent lets me play all day long like having that balance and like ready to go okay I should probably do something else now.
		Recognizing and not sharing online scams	If students discover something is not true, they need to know about not sharing that information or saying, well, I found this, however, I discovered that this part was not true and explaining why.
		Modeling appropriate behaviors for students	Even as an adult, reading the terms and conditions is very overwhelming because it's written in very legal jargon, so kind of breaking it down helping students with words that you'll find throughout or words or phrases that you need to be careful about.
	Redefining digital citizenship	Students' increased virtual connections	It's important to teach students that digital literacy skill to like look through, and ask like what are you looking for? What should you be cautious of? What's Okay? What do you ask your parents for permission for?
		Rapidly changing technologies	After this year with being connected so much virtually it was kind of like okay, we need to take a step away from technology, and you know just go in and do hands on things, which I agree with. As adults, it is important to know how our students are now using technology for homework assignments, gaming, and social media so that we can connect with them and understand what issues and scenarios they may face in their regular digital interactions. There are so many different components to digital citizenship and as technology continues to evolve, I am sure more aspects will be discovered and emphasized.
Being safe	Asking permission	Over the years I have heard students make comments about their use of technology such as playing video or computer games, texting, and using social media, and I usually make the comment that I hope they have their parents' permission to use these different sites and that they are using them responsibly and safely.	
	Protecting private information	You need to know how to check an app, website, or social media platform for their terms and conditions to see if it is appropriate as well as what information you are agreeing to when using it.	
Being respectful	Disagreeing respectfully	If you disagree, then learning to disagree is important. It's okay to disagree, but how you're disagreeing with that person instead of you know, being rude and disrespectful and name calling say Oh well, thank you, you know, for your insight, however, this is what I think or I would I disagree with you because, and then give a reason. Learning how to disagree in a respectful way is important.	

Participant	Theme	Invariant quality	Verbatim text
Samantha	Being respectful	Having positive interactions with others	<p>You want to think about how someone else would feel reading what you wrote.</p> <p>If you're going to say something online to someone else you want to make sure that you're not writing in all caps so you're not looking like you're shouting at somebody.</p> <p>You want to keep your comments positive for the most part, I mean you can give people suggestions, but you don't want to say things like "that sucks or I can't believe you made this!" That's something people would have a hard time interpreting because they're not seeing your face, you're not having a live conversation with them, it's asynchronous so you know you want to really think about the words that you use.</p>
		Protecting private information	<p>The idea that someone could harm them through the computer by gathering information, I think that really scares the crud out of them and they may have experiences from their parents, because a lot of them will tell me things their parents have told them like their credit cards numbers have been stolen or they clicked on a text that was sent to them, and it ruins their phone or whatever.</p>
	Helping students recognize the impact of their digital footprint	<p>A digital footprint is nearly impossible to erase so it is important to know how you want to be seen today and in the future.</p>	
	Evaluating content online	<p>You need to understand that any content you create, words you post, pictures you share, videos you make and so on or consume such as websites you visit, videos you watch all create a digital footprint, or in other words a trail of information about yourself.</p> <p>Being a good digital citizen is not just about saying kind words when interacting with others in an online environment. It is also about understanding how to critically evaluate online content so that you do not spread misinformation, biased opinions and inaccurate data.</p>	

## APPENDIX H: ESSENTIAL SKILLS AND KNOWLEDGE: ADMINISTRATORS

Participant	Theme	Invariant quality	Verbatim example	
Philippe	Safety skills	Stay in social circles you know	<p>What I have found in the past is that students aren't aware of the importance of communicating among people they know. They use social media to make inappropriate connections or share other people's information that is not their own. The same is true for families. They obtain information from social media that is incorrect and believe it. This causes emotions to rise and phone calls to school with the misinformation.</p> <p>Part of my responsibility is making parents aware of what was going on with the cyberbullying and then being very transparent by explaining the consequences. If the student does continue to bully, then my next step is to notify the authorities that this is going on., I would tell the victim's family that if they get one more communication in the form of bullying, that they should reach out and file a report and then sometimes it would end.</p> <p>Many times cyberbullying happened at home through their own personal technology or through their phone. Students think that because they deleted the conversation, it went away and they were not going to get caught.</p>	
		Avoiding cyberbullying	<p>I have seen examples of students being good role models and practicing good digital citizenship by reporting inappropriate behaviors and bullying online.</p> <p>Some students report other students' improper use of technology and are not afraid to do that and alerting the teacher to what is going on.</p> <p>A student quietly reported that they saw one of their classmates logging in and searching , and you know kids get savvy, they know...they could have their browser window open and they know when somebody is around they can open and pop up what they should be working on. Their classmate saw them doing that, so they just made the teacher aware, so the teacher became more observant and then, in turn, discovered that the student was right. The student who reported it was never discovered because he just quietly alerted the teacher and she became more present.</p>	
		Reporting inappropriate behavior	<p>I had students that in one classroom that had figured out a way to bypass district security. They had actually started chatting with two gentlemen who were in another country. The chat was very inappropriate and of sexual nature and it was happening within the classroom.</p> <p>My eyes are really opened my to what kids know about technology and unfortunately the bad things they know how to use it for and how inappropriately they use it. The other thing I've become more aware of is how much access kids have; they have unsupervised access outside of the home and some parents just are oblivious to it. Even if some parents are aware, they are too busy with their own life or they just don't care.</p>	
	Roadblocks to skills and knowledge	Dangers of students' unrestricted online access	Lack of parental support	<p>Students go in and search for things that are not appropriate or they use social media to bully.</p> <p>It's unfortunate, but a lot of times the parents say things like, "my child would never do that." Then, it's like, I have proof right here and the parents still deny it. I tell them you can choose to believe your child or you can choose to see what I'm presenting to you, but my reality is I was seeing your child doing it.</p>
			Lack of time	<p>Teachers already have so much on their plate.</p>
		Lack of prioritization of digital citizenship	<p>My biggest takeaway is that digital citizenship is not prioritized in our schools. We provide our students with technology, but do not teach them how to use it responsibly. We assume they understand how to use technology responsibly and assume that they understand all the capabilities that it has to offer when used in the correct way.</p>	
		Lack of a clear definition of digital citizenship	<p>It has been evident through conversations with teachers throughout the past few years that they are not aware of what digital citizenship is and what it entails. I think we need to start from the beginning to provide the understanding and skills that teachers should be instilling in their students while they are using technology in the classroom and at home.</p>	
		Lack of consistency in skills instruction	<p>I think there needs to be at the elementary age a media specialist or a teacher that specifically has that job to introduce skills to each of the kids like starting the program at kindergarten and it just continues to grow so every year you build off what they learned the year before. For example, students may have done a small PowerPoint presentation in second grade, but next in third grade, they did it again, but they built off it and they continued to grow the skills off of that and keep going.</p>	
			<p>Students need to build on their digital literacy skills to find information digitally, and take information to create their own digital presentations, as well as being able to communicate or share information with others.</p>	



Participant	Theme	Invariant quality	Verbatim example
Lucile	Understanding the positive aspects of online interactions	Lack of professional development for teachers	I believe that teachers should be provided with professional development on digital citizenship.  Teachers need to learn the habits that go with using technology in a safe and respectful way.
		Lack of collaborative efforts	Skill building also goes back to the collaboration with the classroom teacher, you know so the classroom teacher knows how to support students in the classroom as well. I think that collaboration and that working together with the media specialist who focuses on specific skills is very important.
		Lack of understanding the capabilities of technology	Teachers play an online game and or use technology to entertain or say they're going to use technology to practice a skill. Well you know I think again that's not the only thing that technology has to offer. I think it really comes down to the teacher taking the time to understand the capabilities technology offers and using it responsibly not just as a reward event.  I have teachers who use Google Classroom. It is a great platform for students to utilize and provide feedback to one another and comment on each other's work and collaborate to create something. I think there's the true capabilities of technology. Some teachers use it and it works out. It's a great way for kids to collaborate, especially if teachers and students weren't able to meet face to face, they could still work together in a group and collaborate to create an end product that. It's about teachers thinking creatively about how they can utilize different platforms, or different pieces within Google.
		Lack of understanding the functionality of technology	I think many of our kids have better digital citizenship than their parents. For many, like me, it just wasn't a part of my education and growing up. Many parents just don't know all that technology can be used for. My youngest son, to him, other than gaming he has no desire to use technology, other than games on his phone or whatever, because nobody ever taught him at a younger age about the functionality of technology. I think about how I am contributing positively to my digital group community and I think about the potential for relationship building.
		Creating a community of learners	I've had students talk at length and I've had to talk through digital responsibility with students, either by students talking to each other on their cell phones or texting or interacting on apps like Snapchat... they have an awareness that there is a community.  Students as young as maybe third or fourth grade, and I know younger students even use social media and then students even younger that have digital friends through games like Minecraft or whatever platform. They're happy to be using Roblox.  I also recognize that not everybody has access to that same level of digital community and that that's part of a big inequity in our society and in our school systems.  Before teachers can create an online classroom community, they need to ask how that translates over into a digital community. For example, even our kindergarteners are putting up things on Seesaw, and they need an understanding that other people can see what you post.
		Maintaining and starting new social networks and connections with others online	I made a new friend through social media. It started with a request to edit a story she was writing in a forum I followed. I enjoyed a previous story she had published, so I connected with her to see if she still needed help. This connection sparked a friendship that has lasted for several years.
		Increased social interactions among students and community building	Students interact with digital groups, and this can be something as simple right as logging into a website and getting onto whatever place you're getting onto like your Google Classroom or Seesaw... we saw that a lot from this last year during the pandemic. We saw just how much they are interacting with one another. Third and fourth graders for sure are connected that way, especially during the pandemic their experiences and their capacity expanded because it had to.
		Understanding the negative aspects of online interactions	Using social media to bully A really prominent example stands out, there were three fifth grade girls who were really very sophisticated in their targeting of another student through social media to bully and target and attack another student and making it look like it was somebody else. It went so far as a student creating fake accounts with another student's name. It was very complex and took me a while to figure out. I ended up involving my school resource officer.

Participant	Theme	Invariant quality	Verbatim example
		Sending dangerous messages	<p>There was not a death threat, but there was a student sending dangerous messages to another student saying, “you should kill yourself.” That was one of the messages, but it was seated in something much deeper than I really was able to even uncover. It’s like I can’t prove anything but everybody’s parents are texting me and showing me where the message came from and screenshotting it. I had to go in and educate the whole class without throwing those three girls under the bus, and like a lot of the kids had no idea what was going on...but trying to explain, at a fifth grade level, you know the impact of seeing those things said about you.</p> <p>As an administrator, I have to address the impact of sending dangerous messages and that having other people see those comments made about you, are very, very powerful and damaging. Also, then getting students ready for junior high and high school where it gets a lot more intense.</p>
		Lack of clear definition of online interactions outside of school hours	<p>It really opened my eyes to the lengths that kids will go to try and sort of feel their own bad feelings by hurting others. It was really very eye opening how quickly those social media accounts can become really dangerous like telling another child to kill themselves is really dangerous, because sometimes they do it. The reason I get involved in issues, even though these things happen outside of school is because when they spill into school and disrupt the learning environment, then I can step in and see what’s happening and I could call my resource officer in to have a talk about digital citizenship, responsibility, and cyberbullying.</p>
	Responsibility skills	Responsibility to others	<p>Teachers have a responsibility in helping students build an awareness that even though you’re not physically in the same space online, you’re in a community, and there are certain expectations. I just think about students playing a video game with friends from class like at home on your Xbox or PlayStation and playing Minecraft. I think about some of the responsibilities that you would have within that community. I think teachers need to help students understand more about empathy and respect in connections with others online.</p>
		Protecting others	<p>I ask for my son’s consent before posting or sharing his content. For example, is it okay for me to post this picture? If he’s not comfortable with it, I honor and respect that, as part of his story or his narrative or his ability to exist within a digital community. He may not want it posted because either it’s embarrassing or he doesn’t want people to see it, or like that’s part of protecting his identity.</p>
		Reporting inappropriate behaviors	<p>I had some kids that would have no idea that certain apps even existed because I had kids whose parents didn’t even want them to have a phone. I gave my son a phone when he was in fifth grade because I felt like it’s better to learn about it when you’re a little younger. I don’t I don’t believe in sheltering kids.</p> <p>There was this instance of a student who was bullying online, and she was deeply hurt. I think it would have come to the surface sooner and so it could have stopped sooner if others maybe had like the responsibility to report. Also, understanding that even if the thing that they wrote is not about you, if it’s about someone else just doing nothing is not okay... that was a big piece of it like there were kids who knew and didn’t say anything. The two or three that were really involved in the really negative sort of incident, there were three or four other kids that knew because they saw it and didn’t say anything, so I think the hope is always as with anything, even if it’s in person or online bad behavior, that we teach kids to be up standers and maybe at least one of them might say something sooner.</p>
	Roadblocks to skills and knowledge	Lack of support and guidance for teachers	<p>I don’t think classroom teachers are all thinking about digital citizenship, especially in elementary school. I think that teachers need support to think more explicitly about digital citizenship but I also think we’re all one to one now and teachers have to think about that responsibility. I keep going back to that word responsible, which is what I connect with the word citizen, because when you’re a citizen, you have a responsibility, I don’t mean that in a rigid sense I just mean it in a sense of media.</p> <p>I think it’s going to take some guidance for teachers to fully know that what they’re teaching is digital citizenship.</p>

Participant	Theme	Invariant quality	Verbatim example
		Teachers' varying degrees of comfortability with technology	<p>I think some teachers will run with technology and take the digital space, the digital components of pandemic teaching and bring it into their teaching. I think some teachers will put a wall up and say I don't want anything else to do with technology for a while.</p> <p>It's going to be very interesting to see where people land in their desire to interact with that digital component of teaching. I think some people will say no, thanks, I'm taking a break from that for a while, I don't want to see Seesaw ever again. Then other people are going to be say that was the most awesome thing ever I can't wait to use it in my in person instruction. I think a lot of people are going to end up in the middle.</p> <p>I had one teacher who would spend hours taping lessons and sending things home and then the parents didn't do the work and then she was upset and like it created this cycle, where no matter what I as her administrator I did to help or support, she couldn't get herself out of that so for her that was trauma that will live in her for a while.</p> <p>For other teachers, they handled it no problem they just were like oh okay I'll just do this this way. I think teachers' experiences with technology were varied.</p>
		Lack of understanding an online classroom community	<p>There was the trauma of having to switch teachers' whole mode of teaching. The experience of having to switch their whole mode of teaching from in person with physical books and papers and pencils to digital. It was exhilarating for some teachers, it was frustrating for other teachers and for other teachers, it was traumatic like it was just their whole world got turned upside down.</p> <p>Before teachers can create an online classroom community, they need to ask how that translates over into a digital community and so by having teachers sort of identify that like even our kindergarteners are putting things and doing things on Seesaw they can take a picture of something and upload it into their Seesaw a lot of that and understanding that other people can see what you post.</p>
		Lack of consistency in skills instruction	<p>As an administrator, you have to address the willingness of teachers to incorporate digital citizenship. You have to be thinking about where it fits into the curriculum, thinking how teachers will work with the tech teacher or IMC specialist to make sure everyone is giving consistent messaging.</p>
		Lack of collaborative efforts	<p>Prior to the pandemic my experience had been, a lot of this mentality that "Oh, the IMC teacher, the tech teacher that's their job to teach them how to search and so when they get to me they should know how to search!" Well, first of all, this is a life skill, not a skill you get in two tech periods. For example, I'm still learning how to search Milner Library for the articles that I want and then finding them...it's a rabbit hole.</p> <p>There is this idea that it's somebody else's problem.</p>
		Lack of a clear definition of digital citizenship	<p>There should be this collective sense of responsibility at a grade level or at a building level, that includes area teachers, it includes my art teacher, PE teacher, my tech teacher and includes my paraprofessionals. We all need to be collectively responsible. I think this varies greatly amongst schools.</p> <p>I think some teachers just think digital citizenship is don't tell anybody your password or where you live and it's that safety component. Some other teachers view digital citizenship as the students' responsibility, like to know how to log in to Google Classroom. Then other teachers have a greater understanding of digital citizenship, but I think allowing space for teachers to go out and talk about that and know what that might look like, or what the potential is for digital citizenship, I don't think it's going away because the tech is here, and the connection is here. Everybody is connected on their devices in ways that even five years ago weren't happening.</p>

## APPENDIX I: ESSENTIAL SKILLS AND KNOWLEDGE: STUDENTS

Participant	Theme	Invariant quality	Verbatim statement
Ava	Being respectful	Showing kindness to others	A friend of mine got scammed in an online game once so I gave her a really good pet in the game to show her I was sorry that happened.
			A classmate shared online that she was having a really rough day so I told them I felt bad for them and that everything would be okay and to have a great day!
	Being responsible	Showing empathy for others	Even if someone is being mean to you online, be kind to them you never know why they are having a bad day. When I am online I always try and think how I would feel if someone said something mean. It feels bad. I wouldn't want anyone else to feel that way so I always try and be kind.
		Ignoring mean behaviors online	If someone is being mean online, I would just walk away. You don't have to deal with that stuff.
		Reporting inappropriate behaviors	There are mean people online, but you have to just ignore them. If you see someone being unsafe, you should report them online and block them. I always tell a trusted adult too.
		Being an upstander	There is a game I play online and I have gotten scammed on it. I saw someone else who was playing the game falling for the same scam and I tried to warn them about it.
	Safety skills	Having an awareness of others online	You want to be aware of your classmates and your teacher and listen to them. You also want to be aware that there are mean people out there on the Internet but you need to just ignore them and stick to what you know is right.
		Finding trustworthy and reliable sources online	It is very much important to always know if the website you are using is safe and reliable. You look at multiple websites to see if the information checks out and is true.
		Seeking help from a trusted adult	I was doing a research project about a famous person and I needed some sources for the project. I googled it and found a website and it said she had died, even though she did not. I have learned since kindergarten about reliable sources and how you can't always believe everything you read. I would say you should always ask a safe adult to help you when you have a problem online or like when you are downloading apps. There is a lot to read in a privacy policy so ask a trusted adult for help so you know you are being as safe as you can.
		Being cautious	Be careful of what you read online because it might not be true and you could fall for it.  You could spread bad news or upset someone because you shared something that was wrong. You have to be careful.
	Thinking before doing	If someone told me to go to a website like if they sent me a link to a website, I just wouldn't go because it could be anything. You want to always think before you say, do or write something. If you are typing something on the Internet you should probably think before you post it.	
Eleanor	Responsibility skills	Positive online interactions with friends	My friends from real life we used Zoom during the pandemic when we couldn't see each other. We played games and talked and I remember everyone just being really nice to each other.
		Students' lack of ability finding trustworthy and reliable sources online	We were doing a research project on Native Americans and another kid was doing the same tribe as me. He had a fact in there that was totally different than what I had written. It turned out that one of his resources has fake. He had no clue that it was fake.  Kids need to know how to figure out if the source, or website is actually has good information or not. Our teachers give us websites that we can get on to, so that's the main thing that kids do.
			I would ask a teacher or librarian if I got stuck and needed help finding reliable sources.

Participant	Theme	Invariant quality	Verbatim statement	
Leon	Safety skills	Avoiding online interactions with strangers	I use an app that lets me talk to my friends I can text them and do video chat too.  It is important to be responsible online because you could get bullied very harshly or kidnapped or something. If you were talking to someone online, you wouldn't argue with them, or to put it simply, be mean to them.	
		Avoiding online arguments	You could say, "I do not agree with you, but that is okay" or "we can just agree to disagree."	
		Protecting private information	Kids need to know how to make passwords or usernames that aren't easy to do, like don't use the same one for every single thing.  Don't give your address, phone number, or even like your real name to a random person. That's definitely being irresponsible.	
	Safety skills	Avoiding interactions with strangers online	When I'm online I always want to know who I'm talking to because that person could be anyone and it might not be safe.	
		Protecting yourself and your private information	Even I have fallen for this before. On my phone it says there is a virus on your phone and to clean it out. So I did, thinking I was protecting myself and my phone, but then it turned out to be a way scammers were just trying to get my information.  When I was younger I gave out my email for something I shouldn't have and then I got bombarded with junk mail and I got hacked. It was scary and weird. I had to delete the email because it wouldn't stop.	
	Responsibility skills	Finding trustworthy and reliable sources of information, applications, and games	I learned fake websites tend to look like a real website, they don't want to get sued for copyright, so they might add or take a way a letter. Like for example Roblox, I once clicked on a Rooblox. They make you think it's the real thing, you don't even care, so you login and don't even think about it. They do that to give your information away to other people, and they login to your account and change your password when you logout. They trade everything in the game to their main account so it like transfers it. You can get too excited to check but you should see if it is trustworthy.	
		Being cautious	We did a research report on climate at school. It helps me when a teacher gives us the websites to look at and shows us how to search right. I know I might go to the wrong site if they did not do that for me. So I was on the iTunes store app looking for a new game to download. This one app said it was \$3.00 and then it charged \$26.00! There were no refunds either so I was stuck. Also, the game was nothing like how it said it was going to be. Now I know I need to be careful. They make it look so real.	
	Being part of a digital community	Getting help from a trusted adult	You have to know what you're doing and be careful. Like an example is Funko Pops they cost about \$10.00. I was so excited to get one that I bought it online and I really overpaid and it cost me like \$100.00 and it wasn't really even the right thing. I ask my mom to help me download things. You should always try and ask your mom to help you so you don't get in trouble or give away your information. If you had a problem with your iPad or something just go to your parents and tell them what happened and they'll help and just connect you back.	
		Showing kindness to others	When others are kind, it makes me want to be a part of that online community and when people aren't kind it is hurtful.	
		Showing empathy to others	I know if my online community isn't kind I don't really want to really be on there much. If your parents see that your online community isn't kind, they probably won't want you on there either. As a matter a fact if someone is bullying online then I will step in for them. In Roblox, this person bullied, they said to someone "you look like a rat" I responded "no that's mean don't say that." I felt bad for the person they were upset by it and it they kept arguing. Then the bully told me I was a little kid and to go away. I said, "ok, whatever."	
				When you're in an online community you don't just think about yourself but you think about other people too.

## APPENDIX J: ESSENTIAL SKILLS AND KNOWLEDGE: TEACHERS

Participant	Theme	Invariant quality	Verbatim statement
Margaret	Responsibility Skills	Responsibility to others	It can't be the responsibility of just one grade level teacher to teach digital citizenship skills, it just needs to keep on going, whatever your content is, you need to make sure you incorporate some sort of responsible digital citizenship with students.
		Basic troubleshooting skills	I think parents also need to take responsibility, I would very much enjoy parental partnership because like with screen time, parents presume their child is doing one thing, but they're really still on a screen gaming or social media. It's very easy for kids to turn them on and lose sleep. Parents need to be thinking about that. It's important for students to be able to troubleshoot, being able to try to find answers to problems. For example, I had a student or two who said, "my Chromebook is dead, I'll get on my phone on the app for Zoom and get into the Zoom that way." That's four different troubleshooting skills, first, you have the app for Zoom on your phone, then if you can't get in with your Chromebook, you can't go to school today... you find a different way, I think that that's going to be critical for this generation of kiddos that there are so many platforms and so many different ways to use things.
		Teachers modeling and sharing their digital world with students	I am also a talker with kids about what they see. My screen and my projection devices are on almost all day, I don't turn that thing off, and so they see a lot of my world up there and they'll ask questions and they're full of suggestions for me like "oh you should do this, you should group your tabs together like this." I actually listen to them, I stop, and say ok show me what you mean and then I'll do it in front of the class so we can all learn it.
		Students sharing their digital world with teachers	It's very interesting hearing their knowledge. I never got into like an RPG or any other things my kids play but I think it's interesting. Some teachers get really into that and that's how they stay on top of what kids are doing.
			We played <i>Among Us</i> with students during one of our office hours we played with students. It is an app, and it's a game.
			A lot of culture, if you will, a lot of recent urban culture, like if someone says "that's suss," well actually, on <i>Among Us</i> see like they'll say, "that person suss," as somebody is the imposter and the others are not, so you have to like know you're the imposter but other people don't, and it is fascinating. It's like we're going into their world.
		Using reliable sources ethically	Students are going to look at the visual and you know we're dealing with the TikTok generation-you got 60 seconds. They want to see it, they don't want to read it, they don't want to have to put anything into it, they just want the information and then they think that that little nugget of information is all the information that they need. It's almost like you can't separate it from just basic good research skills, in ELA. Like how do you look up information for something? I tell students all the time...I can create a website, I can say whatever I want, but you have to know if I know what I'm talking about. I could say the sun revolves around the earth, and if that's there you can quote me, but I have nothing to back it up but my website. Honestly, they want to take everything at face value and they really can't.
			One young lady in fourth grade was doing a PowerPoint and I asked her, "Where did you get that image?" and she said, "oh I just got it off the Internet." It was about indigenous Native Americans and she said it just looked like an Indian and I'm like where to even begin? First of all, we don't just copy paste everything. Second of all, let's unpack the whole she looked like an Indian thing.
			I did talk to the teacher and explained we kind of have a responsibility to teach students not to just take things off the Internet, not to just copy and paste off the Internet without giving credit and he did not care. You know, like some teachers just want students to make a PowerPoint and it's when we have them compile things like that there are layers of responsibility that are ours to make sure we cover. Whether or not the kiddos do it or not you can't control, but you can at least put it out there for them.

Participant	Theme	Invariant quality	Verbatim statement
		Developing critical thinkers	<p>I don't want kids to be cynical, and I do Nearpod lessons talking about credibility of information—how to look at something and know right off the bat it's not legit. Like if it's an article, we look at the URL, if it looks good, we look at the logo, we click on the author and we also have used All Sides—to see what a news article looks like from all sides—the middle, the right, the left as far as media outlets are concerned.</p> <p>It's important for students to know...to be skeptical...to look at a website and think hmmm...and know the step to fact check things. That's just a big thing to me.</p> <p>You have to be a smart consumer, like to be able to look at something and just know it's a scam...like when I look at my voicemail and it says my car insurance is about to run out for the 50 thousandth time I know not to pursue that. Like fact checking things.</p>
		Geeking out with technology	<p>Hopefully we can allow kids some almost like digital maker time to really dig into the different things that they can do with technologies. You know like that whole idea of hanging out, geeking out, messing around... but in order for us to give students time to do that, we have to be able to trust that they're going to be responsible, like it just goes it all goes hand in hand.</p> <p>When students are at the table with everybody, and they have things that they can contribute, it makes them want to be more responsible sometimes too."</p>
		Understanding the functionality of programs and digital tools	<p>My biggest goal with the kiddos is them being able to say okay, this is my problem or my project and to be able to have a cache of like "I'll use this"!, and not for me to say, "Make a Google slide deck", but for them to say I think I'll make a Google slide deck. I want them understand the tools that are at their disposal.</p> <p>It's important to understand different platforms, to troubleshoot and be able to find answers to the problems you are having. Like I had a student or two whose Chromebooks were dead and they knew how to get on to Zoom with the app...there are so many skills in that. You find a way you don't just (throws up hands) and say oh I guess I can't go to school today! You find a way. I think that that's going to be critical for this generation of kiddos because there are so many platforms and so many different ways to use things.</p> <p>What I've noticed is not really a gap, but a difference between kids who are on tech at home and those who aren't. You know we do a lot of assuming. I assume digital native-ness...and like no, they're not all going to pick this up and go with it, but then on the flip side, I see amazing things and their ingenuity with tech.</p> <p>What I really like is, like my perfect moment is when a kiddo uses a piece of technology in a unique way, and the other kids see it and they start emulating it.</p>
	Safety skills	Protect yourself	<p>A lot of my own son's social interaction right now is through Instagram and chatting on Instagram and he lives on Instagram and things like that. There are people who come in and out of those things because part of his login is public, but he also has like six or seven logins so what happens is he sometimes gets trolled by kids who will like start up an account on Insta and call it something with his name in it just to irritate him and then they comment on his live. I'm thinking this goes unchecked, you know it's great to have social media!</p> <p>I have several different Insta accounts, based on what I use them for I don't always want to see teaching stuff on my Insta and I do crafting and card making and stuff so I have different handles for that, but that's not what it's being used for it's being used by kids to hide behind an anonymity; like an anonymity to be mean.</p> <p>I want to know what is going on, I love to learn about different things that could be used for my kids and my classroom also I'm all over social media. I'm on Twitter, I'm learning a lot on TikTok. But then there's the privacy issues, you've got to look through that stuff.</p> <p>I think we've gotten students to a good point with being careful with their sensitive information, but I don't think kids really understand all the other ways their information can be gotten.</p> <p>Like cookies in general, that are thrown to their computer, and those cookies are going to gather information for that company to try to make more money.</p>

Participant	Theme	Invariant quality	Verbatim statement
		Teachers' lack of awareness of potential safety issues	We as teachers have got to be aware. I've heard way too many people say, well, I can't just be watching their screens and it's like if you have them on a screen in your classroom, you have to in some way make sure they know you are watching because they're kids. You wouldn't let your two-year-old walk out in the parking lot of Wal-Mart without holding their hand, it's the same thing here.
		Being aware of one's digital footprint	We have done so much on our school app committee and I'm trying to bring that back in the classroom and saying look you guys, there are things that I didn't even know these companies were gleaning about you from something that seems so benign you know? So I would say the knowledge that what kids do online is part of understanding their footprint and if it's not something you know fantastic and it's not going away, that's awesome...but if it's something not fantastic, then that's not awesome. It's just the sheer speed with which things can get out of control.
	Respect	Respecting the rights of others	We were doing Flipgrid introductions and they were supposed to comment on someone else's introduction and one introduction was particularly bad. The young gentleman who responded to it, he was really upset because I deleted his response, and he and I talked and even when we talked I don't think he realized that he had over stepped what was acceptable commenting. He would he would just rip into this kid like this saying "this doesn't make any sense!" Like he could have had his own little radio show! I was like that is not what this assignment was about.
		Awareness of the privileges granted by technology	I think they are very much used to posting whatever on whatever media they use outside of school so having those yeah those conversations with them about respect is important. I also like to talk to the kiddos about the privileges that they have having a device, you know that's part of digital citizenship too; this is part of being a responsible digital citizen. We could Zoom, do Flipgrids, we had a pandemic and could still do school! That's a huge privilege and part of our school district's digital media and vision that every kid can participate in something like that.
Margo	Safety skills	Things are not always what they seem online	Students need to know that sometimes how people conduct themselves online is not the true reflection of who they are, as a person. You have more time to reflect almost and sometimes that emotional connection is taken out of it because you're not in the same room. It's a little bit more emotional when we're able to see each other, and I can kind of read your face.
		Avoiding dangerous people online	If we were just communicating via email or in a chat or different platform of just like typing back and forth, sometimes it takes the emotion out and people can get maybe sometimes a little impatient, or sometimes they kind of play off like their life is this beautiful amazing thing only because they are showing you what they want to show you. They can hide what they don't want you to see. Not everyone has good intentions on the Internet. Some very serious situations can arise if you're not careful.
		Avoiding online scams and not sharing them	People, like pedophiles, could try to lure you into a not so great situation. You have to be very aware of who you are communicating with online. Because the contents of the message were out of context of how I would typically interact with this person, my guard immediately went up. I had a feeling this was a scam, especially because it included a link. Usually scammers include a link to try to get people to click on them so they can mess with your computer and steal your information.
		Reporting suspicious behavior	I immediately deleted the spam friend request, blocked the person on Messenger, reported the suspicious account to Facebook and then sent a text message to my husband's family, including my grandfather-in-law about what had happened so they could change their password.
			Students need to know when to ask for help if someone or something has gone too far.



Participant	Theme	Invariant quality	Verbatim statement
		Protecting private information	<p>Your teacher, your parents, and you as the student are the only ones that should know your password. Beyond that it's not a great idea.</p> <p>You need to know what information is okay to share and what information you shouldn't share. Like obviously I'm not going to share my phone number or my address with a complete stranger.</p> <p>A student shared his password in the Zoom chat because other kids were sharing their Roblox usernames, I think the student got confused and thought he should share his district password.</p> <p>The student saw other kids sharing information and just thought "I'll share too." But that was the wrong thing to do.</p> <p>But I might email you my address or phone number if we have that established relationship and that's Okay, because I know I know you, but I'm not going to send you my password even though we're friends.</p> <p>You need to know how to check an app, website, or social media platform for their terms and conditions</p>
	Being respectful	Asking permission	Students need to know even if it's your friend and you're going to post a picture on social media you technically need to ask for their permission.
		Respecting others' opinions	While we may not agree with others online, we can at least try to understand why they have come to have that opinion. I think there is value in that, especially in today's society.
		Respectfully disagreeing	Engaging in debates online is usually unsuccessful because both parties typically approach the situation believing what they have to say is correct and are unwilling to change their opinion. Hence why for my own sake (or my student's) take a moment to think/reflect about why this person may have that opinion based on their own experiences and continue on with life. You have to be a good listener.
	Responsibility skills	Learning about one's digital footprint	I think about my students' digital footprint and I think that's really hard right now, because it's such an abstract concept because they are so young, being in fourth grade nine and ten years old, they don't necessarily realize that what they can do on the Internet, right now, can affect their life later on.
		Finding reliable sources	Students need to know how to do a search and know what reliable resources to look for. They also need to know about fact checking.
			Students need an understanding of how and where to search for sources.
			Digital literacy is included here, knowing how to read the information online to find what you need.
		Following copyright	Students need to know about copyright with pictures. Especially because it's so easy to just Google an image and take it which technically you're not supposed to do, that it needs to be ones that are approved, and are allowed to be shared unless you're going to credit them appropriately.
Samantha	Being respectful	Knowing how to positively interact with others online	Students need to know how to "speak" or interact with others online in a way that can be seen as positive and respectful. This means no name calling, writing in all caps, or swearing."
	Safety skills	Being cautious	I always think about how kids have no concept or lots of adults have no concept that just because you make something shiny and pretty doesn't mean that it's accurate, it doesn't mean that there isn't an ulterior motive to it and you should be cautious.
			I don't want kids to distrust necessarily everything on the Internet, but I do want them to think critically and question and not just expect it to all be on the up and up.

Participant	Theme	Invariant quality	Verbatim statement
		Protect private information	<p>One thing that comes up a lot is hacking, and when we talk about being safe online kids are always talking about how someone's going to hack their computer or someone's going to hack them. I don't know that they always understand what that term means and I don't even know if I 100% understand what that means.</p> <p>I know that we have like 86% [of our students eligible for] free and reduced lunch, so we have a lot of poverty, so our families and our kids have very little. So the idea that someone could you know harm them through the computer by gathering information I think really scares the crud out of them.</p>
		Stranger danger	<p>A lot of kids tell me stories that their parents tell them. I don't know if their parents really believe it or if their parents have had experiences where their credit card numbers have been stolen or they clicked on a text that was sent to them and it ruined their phone.</p> <p>Well, I do think we definitely need to talk to kids about all kinds of stranger danger, and the fact that you don't always know who it is you're communicating with or what their goal is. Hopefully people are representing themselves accurately online, but you don't know and you could be talking to somebody a little bit older, or even a little bit younger than you and not realize it.</p>
		Understanding a digital footprint	<p>It's a little scary because there's so many AI bots out there trying to collect information and they can mimic human communication really well so we do have to be thinking about whether someone is trying to get information from us.</p> <p>My partner will get very upset with products like with our TV because it doesn't work properly anymore, or he'll be upset with some computer program and he'll go ranting on Twitter and I say just think about how that represents you when you are only taking to these public platforms to complain. It makes you sound like just a complainer person even though you're not. But you're not representing your whole self, you know? That's the impression you are making.</p>
	Responsibility skills	Looking critically at online content	<p>You need to understand that any content you create, words you post, pictures you share, or videos you make and or consume like websites you visit, videos you watch, all create a digital footprint or in other words a trail of information about yourself. This digital footprint is nearly impossible to erase so it's important to know how you want to be seen today and in the future.</p> <p>I go to the Common Sense website with my students, they'll have little excerpts and examples and so I will read it aloud and I'll ask what students thinking of this person who posted this online. Then the kids will give me feedback about what their impression is of this fictional kid and I say okay, you know, thinking about that when you are posting things online what's it going to say about you?</p> <p>Kids need to understand how to look at information critically and not just believe that anything that somebody posts or any video that somebody creates is factual or doesn't have some sort of bias....or angle to it, some purpose, so they really need to be thinking about that.</p> <p>I do try and show them websites to get them to think about some of the information that's being shared and whether or not it's accurate and how its presented.</p>
		Following copyright and usage rights	<p>I talk about design elements and I'll usually give students an example of something that's really bad. Then we'll fix it together and we'll talk about why was it not a good idea to put words in all caps or change the font so it's like a million colors.</p> <p>When we look at websites we look at the design too. Was it easy to navigate? Was it easy to understand?</p> <p>We also have to think about giving credit and not stealing content from other people, so we have to know about usage rights. I don't even know if I understand all the copyright details because it feels like it changes I's hard to stay on top of all of it, but I do try to teach students simple ways to look for images and videos that they are allowed as part of Creative Commons.</p> <p>I tell students if you created something really cool and you put it out there and then later you saw somebody else posted it on their page but they didn't give you credit for it, how would you feel? I feel like more and more we're having interesting conversations like that.</p>

Participant	Theme	Invariant quality	Verbatim statement
	Roadblocks to skills and knowledge	Engaging students with digital citizenship instruction	<p>I want them to understand that they need to be safe and don't want anything horrible happening to them, and you don't want them to make poor decisions, especially outside of school. But, I feel like the kids only have a short tolerance for it, you know we could talk about it for a week or two and then at a certain point, their brains want to shut off or they start to groan and moan.</p> <p>Sometimes I do feel like I have to take a break from the topic, and we have to focus on other things, and then go back to it. It's hard to make a lot of this stuff exciting.</p> <p>I am always stuck with trying to think of ways to make it fun, you know because digital citizenship is not necessarily a fun topic, it's a serious topic and it's hard to think of projects that are necessarily going to strike the right tone and are going to be fun enough to keep them engaged and communicate to them the seriousness of it.</p>