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### Supporting Educators in Digital Citizenship

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**Supporting Educators in Digital Citizenship**

by

Alexandria Vang

A Starred Paper

Submitted to the Graduate Faculty of

St Cloud State University

in Partial Fulfillment of the Requirements

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## **Abstract**

Digital citizenship is more important than ever due to the rapidly shifting landscape of internet use, especially in regard students, parents and educators. The guidance students receive throughout their K-12 education shapes the way they interact with global communities as a digital citizen. To effectively guide students in digital citizenship education, parents and educators need to be digital citizens themselves. What is digital citizenship in today's society? Why do we need a village mindset to accomplish it effectively? And how can we learn through authentic experiences and opportunities? This is a secondary research study that combines academic literature, research reports, and online curriculum and teaching resources as a framework to answer these questions and support educators in their work with digital citizenship.

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## Chapter 1: Introduction

### Background

We are living in a time when people can receive news updates online at the swipe of a finger, social media activism is a way to reach and mobilize large parts of the population, and information is constantly being created and is openly accessible by anyone with internet access. In fact, being a part of the community insists on an online presence, specifically through social networking and social media platforms. As of 2019, Facebook, Instagram and Snapchat are the top three social media platforms used by Americans with one in seven adults using Facebook (Pew Research Center, 2019). These days the most popular person is the person who has the most *followers* or *Facebook friends* – it is about online quantity and quality. On the other hand, there are plenty of stories and accounts of adults being terminated from employment due to social media posts or comments they made (Doyle, 2020). This desire and culturally-imposed requirement of an online presence trickles down to even our youngest of learners. Snapchat, released in 2011, has quickly risen to the top of social media platforms and has caught the attention of many young people. Despite Snapchat's age restriction to 13 years or older, many children have found a way into creating their own accounts. Today's technology-shaped culture is continually changing and there are bound to be repercussions.

It is the responsibility of educators to guide and teach students how to be *digital citizens* in the rapid-moving world of the internet. A digital citizen is a person who has the skills and knowledge to use the internet effectively and responsibly as they participate in society (Ribble & Park, 2019, p. 9). Students of today need to be prepared for their future, but also for what is currently happening. Teaching students and families about digital citizenship and how to use online tools to impact their communities should be at the forefront for all educators. Technology

has been present in the majority of schools across the country as tools to enhance learning and engage students, but the role of technology shifted in 2020 due to the COVID-19 pandemic. In May 2020, “48 of 50 states had closed their schools or recommended that all schools in their state be closed [and shifted] from primarily face-to-face, in-classroom instruction to digital learning facilitated over the internet from home” (Project Tomorrow, 2020, p. 2). Virtual communication became the only way to communicate and teach. It is truer than ever that we live in a world open to the endless possibilities of the internet (Roquet, 2019). What is made possible today through this global connection will only grow and become more encompassing as we step into digital citizenship.

As a secondary research study, this starred paper will focus on current literature and resources highlighting how to incorporate digital citizenship in a K-12 educational setting and beyond into the community. It will explore case studies, best practices and frameworks to build from. The current chapter will present and outline the research problem. Then, the research purpose will be defined using three guiding questions. Next, the research of this paper and its importance and significance to the K-12 education field will be described. Limitations and delimitations are included to give a full picture of what this research entailed. Finally, key terms will be defined in order to build a foundational understanding of essential concepts. This starred paper will explore and attempt to clarify some of the many facets of digital citizenship.

### **Research Problem**

Students today have been labeled as *digital natives*, a generation of people who have grown up in the era of technology and the internet, via the work of Marc Prensky in 2001. But being *digital natives* does not exempt students from needing support in developing their digital skills and literacy (Livingstone et al., 2011). Too often, it is assumed that navigating the internet

is intuitive for students due to a near-constant exposure to technology for the majority, if not all, of their lifetime. Unfortunately, this leaves the door open for harmful internet use and practices that negatively affect a student's life online. Pew Research Center found that 24% of teens felt being online socially had a mostly negative effect on their lives because of bullying, lack of in-person contact, distractions and causing unrealistic views of other people's lives (Anderson & Jiang, 2018). Other studies in the U.S. showed that students were experiencing online harassment or engaging in risky behavior around posting personal and private information online (Martin et al., 2018). Students in Poland, ages 14-18, completed a survey that concluded that five percent of the participants showed full problematic internet use, which is excessive and improper use of the internet (Tomczyk et al., 2020). Garcia-Umana and Tirado-Morueta (2018) found that a high use of internet was significantly correlated to a loss of control in a student's social and academic life. This study was conducted with 773 college students in Ecuador using the Internet Addiction Test scale (Garcia-Umana & Tirado-Morueta, 2018, p. 143). It is clear that students require guidance to be able to use the internet and their online presence effectively in both academic and personal settings. Educators need to become *good* digital citizens and lead the charge of teaching digital citizenship. Digital citizenship is a term that is said to have been coined in 2004 by Mark Ribble and Gerald Bailey with the release of the book, *Digital Citizenship in Schools*. Since then, it has been a changing landscape.

Parents and families are aware of problematic internet use and online issues with their children but struggle to find balance. Many parents and guardians fear what their child will be exposed to or what might happen to their child indirectly because of the internet. A study conducted in Spain by Bartau-Rojas, Aierbe-Barandiran, and Oregui-Gonzalez (2018) revealed that the top three parent concerns for their children online were viewing of inappropriate content

(i.e. violence, sex, drugs), social and physical consequences of internet use, and not knowing what their children were doing online. A report from the Family Online Safety Institute made a distinction between different generations of parents stating that: “Boomer” parents (ages 56-64) tend to focus more on external threats; “Gen X” parents (ages 40-55) tend to be more concerned about what their child is watching; and “Millennial” parents (ages 22-39) tend to worry more about the effects of social media. (2020, p. 19). To combat these fears, many parents set rules around internet use and have conversations around these topics to instill values. Despite studies and research on what measures of mediation may work best, there is still controversy on if a more restrictive or relaxed stance from parents elicits more positive online behaviors (Sanchez-Valle et al., 2017). Some families may be unaware or unsure of how to move forward and the shift to online distance learning has only brought that to light. “In many instances, [distance learning] meant parents allowing more flexibility and the expansion of their kids’ engagement with technology” (Family Online Safety Institute, 2020, p. 5). In some cases, students who did not have a personal device at home received one from school to use for learning, but these devices quickly became personal devices. With students adapting to the trends of online uses, parents need to adjust how they handle internet use at home.

Many educators in the U.S. are aware of student internet use in and outside of school. But when it comes to digital citizenship, schools as a whole have mainly been focused on communication and safety (Roquet, 2019). Most educators focus on teaching how to use specific technology or explicitly about internet etiquette. Lessons are usually focused on the individual and how to avoid getting in trouble or breaking devices. If students are to become digital citizens in global online communities, they are going to need more than just a list of rules to follow (Preddy, 2016). Fortunately, educators are rising to the occasion by going beyond digital

etiquette and into teaching digital citizenship. Educators across the country are learning themselves what it means to be a digital citizen and, in many cases, learning alongside their students. There are great success stories from teachers across the nation, but there are still many obstacles in the way of digital citizenship instruction. “[The] greatest hurdle to teaching digital citizenship is gaining buy-in and instructional time for these critical life skills” (Preddy, 2016, p. 5). Every minute of instructional time is pre-designated for curriculum instruction, leaving little to no room for anything outside curriculum and school district directives. Educators fend for themselves as they work to incorporate digital citizenship lessons into and between required curriculum minutes and standardized testing. Another obstacle is the lack of resources and access available to teachers. If a school district has not adopted a digital citizenship curriculum, then teachers are researching and finding or creating lessons on their own. This patchwork of resources and information does not build a strong digital citizenship foundation for teachers, students or families. In addition to that, resources are in constant need of updates due to rapid changes (Ribble & Park, 2019). As a moving target, it can become stressful and overwhelming to continue the work without support from the top down. With these obstacles, teachers are more likely to focus only on the rules of internet use and not the how to expand from there.

There are many issues and obstacles around internet use. Students are spending more and more time online. They may have grown up with a device in their hand, but this does not equate with knowing how the internet works or the impact of their digital choices. Parents, guardians and families are doing their best to provide guidance for students and instill life values that transfer online, but still struggle to keep up with the ever-changing trends of technology. The lack of time, access, resources and support are problems for educators around the nation no matter where they are in the spectrum of teaching digital citizenship. Everyone, not just students,

will continue to interact online socially and academically, so educators need to ensure they are equipped and ready to virtually walk alongside students and families. The problem is that educators and families are lacking the access and resources to guide them while they grow as digital citizens and model digital citizenship for young people.

### **Research Purpose**

Understanding digital citizenship and figuring out best practices for implementation can be a daunting task but it is too important to forgo. This opinion has been voiced by experts and educators across the nation. Emerich-France (2016) frames it this way: “[With] the emergence of social media and the exponential growth of 1:1 classrooms around the world, a new kind of citizenship has surfaced, one grounded in how we carry ourselves not only in person, but also when using technology” (p. 28). As the culture and norms shift around communities and schools, everyone should be expected to take on digital citizenship. The purpose of this paper is to answer how to effectively empower students, families and educators in their digital citizenship journeys. The guiding research questions are:

- How can digital citizenship stay relevant in relation to the rapid evolution of technology?
- Why is a *village mindset* essential when it comes to developing and teaching digital citizenship, especially in a K-12 educational setting?
- How can schools provide digital citizenship instruction in a way that is comprehensive, authentic and integrated into other subject areas?

The answers to these questions can be found through gathered literature on conducted research studies looking at perceptions, frameworks and models of digital citizenship and how that compares with the data that shows usage of internet and social networking sites by students.

Studies of parents and teachers' beliefs and perceptions of digital citizenship will also help form the foundation for why each party needs to be involved in building digital citizenship values.

This paper will (a) define digital citizenship in relationship to the constant evolution of technology, (b) define the importance of digital citizenship from various perspectives in order to build a mindset and ideology around a village mindset approach and (c) provide models and frameworks around digital citizenship and available resources that can be utilized by all stakeholders.

### **Significance of this Study**

This starred paper will contribute to literature that pertains to digital citizenship, specifically including students, parents/guardians and educators. Gathering recent literature and data will provide a more relevant approach to digital citizenship in the K-12 learning community. Within this community, there is a myth that technology equals engagement because students are excited to use technology in novel ways (Couros, 2014). Unfortunately, "engagement" goes away after the novelty wears off. True engagement is going to come from empowerment, or doing it because it is meaningful (Couros, 2014). This paper will provide a meaningful way to teach and guide students, families and educators in digital citizenship. Some educators fear that technology dehumanizes teaching, but when used outside the spirit of fear, the internet has the power to make us more human both online and offline (Couros, 2014). The culture around technology can be harmful, but when used effectively with purpose, it can be a tool for humans and not the other way around. Authentic situations and opportunities should be used to teach and model what digital citizenship looks like. It may look like online history timeline projects, creating public service announcements or even utilizing social media to engage the community in various events and causes. Literature and studies conducted at higher levels of education are

included to give a picture of what the past and current education system of teaching digital citizenship has led to. This study will pull together a plethora of resources in order to bring relevancy to digital citizenship, call for a partnership between students, families and educators, and explore authentic ways to empower digital citizens.

### **Limitations**

Limitations to this study include the availability of research, accessibility of published resources, and the time and labor capacity of the researcher. Within available resources, there are also limits and gaps. These gaps include, but are not limited to, how digital citizenship instruction has affected student use of social media, the number of schools across the country that have officially adopted a digital citizenship curriculum and lacking information from many countries around the world in relationship to student digital citizenship. Existing gaps such as these are not filled within the research conducted in this study since it is based on previous research. Some resources, articles and books required payment in order to view, but were not purchased to be included in this study due to limited funds. Included resources will be ones that were available and accessible to the researcher via university resources. This study was completed within a year by one researcher. With the abundance of information on digital citizenship and a constraint on time, there is a possibility that resources may have been overlooked or preliminarily removed via search filters. These limitations have been deemed as not taking away from the significance of the study.

### **Delimitations**

Delimitations of this study include the focused topic of digital citizenship in response to internet use, a K-12 education, university or other academic setting, and the published date of resources. Internet access and use has skyrocketed for youth in the United States, but how that is

monitored and protected continues to fall short (Gleason, 2019). Internet use has also increased worldwide from 413 million in 2000 to over 3.4 billion in 2016 (Roser et al., 2015). In response, families and educators can look to digital citizenship as a way to educate themselves and their students as the use for internet continues to increase. For this reason, this study is focused on how to utilize digital citizenship resources and information. There is an extra delimitation imposed on the relevancy of resources to a K-12 education, university or other academic setting. Academic articles and resources will highlight research pertaining to students, educators, or schools. Curriculum and framework will be reviewed for possible usability in a learner-teacher setting as well. This limit will narrow the scope of the environment for digital citizenship. All articles and resources will have been published within the last 15 years, no earlier than 2005, so that articles are relevant to current technology culture and trends. This is also with the understanding that majority of articles will have been published in the last ten years for a higher level of relevancy. These three delimitations work to ensure that the research can be more fluidly utilized by students, families and educators as they work on digital citizenship.

### **Definition of Terms**

These are essential terms used throughout this starred paper: *digital citizenship*, *digital citizen*, *social networking sites*, *social media*, *village mindset*, *educator*, and *technology culture*. These terms are defined here for clarification.

*Digital citizenship* is a term that many people may not have heard of or have little experience with because it is usually used within the world of education. For the purpose of this study, the definition from *The Digital Citizenship Handbook for School Leaders* (2019), is going to be used as the foundational understanding for this term. Digital citizenship is “the continuously developing norms of appropriate, responsible and empowered technology use”

(Ribble & Park, 2019, p. 10). This means that a person is 1) growing and always learning how to better connect with others online, 2) can interact and participate online responsibly and respectfully, and 3) can meaningfully contribute to online connected digital experiences (Ribble & Park, 2019). Acknowledgement is also given to the variety of definitions out there for digital citizenship. Digital citizenship has been defined as “the norms of responsible and appropriate interaction with technology” (Preddy, 2016, p. 4); “internet self-efficacy and information literacy” (Kim & Choi, 2018, p. 156); “a comprehensive look at how individuals actively solve problems and participate in online platforms” (Curran & Ribble 2017, p. 36); helping students “unpack the complicated choices they will face individually and at a societal level” (Roquet, 2019, p. 34); “a concept that includes a range of theoretical conceptions [and] technological aspects” (Gleason & von Gillern 2018, p. 201); setting boundaries “to those who would use technology to command and control users in a way that is contrary to the values of freedom...and human rights” (Alqautani et al., 2017, p. 98); or “a way of thinking, a way of being, and a way of interacting with the world” (Emerich-France, 2016, p. 29). It is important to note, that the definition of a digital citizen is not equivalent to digital etiquette, the internet code of conduct for behavior (Wang & Xing, 2018), or digital literacy, knowing how to use information online (Gleason, 2019).

*A digital citizen* is a term used to describe how a person interacts with technology today. A digital citizen is a person who has the skills and knowledge to use the internet effectively and responsibly as they participate in society (Ribble & Park, 2019, p. 9). They live a technology lifestyle and use the internet regularly. This builds on the idea of someone being a “citizen” on the internet due to the large amounts of time they spend online. Additionally, a good digital citizen is one that practices digital citizenship.

*Social networking sites* are a vehicle that many people use to explore and employ their digital citizenship. A social networking site is “any website which provides the opportunity for social interactions” (Gray, 2018, p. 175). In relation to digital citizenship, this definition is expanded to include how social networks give voice to individuals and provide opportunities for people to learn and participate in global action together (Carmen Garcia Galera et al., 2017). Social networking sites could include Facebook, TikTok, Instagram, Snapchat, and LinkedIn.

*Social media* is similar to social networking sites, but social media is solely focused on broadcasting information in the same way newspapers or magazines would (Froehlich, 2020). The difference is that social networking sites have a two-way communication and social media does not. “Social media requires a social network in order to disburse content” (Froehlich, 2020).

A *village mindset* is an understanding that success, effectiveness and change will only come about when people work together towards a common goal. “According to Wikipedia (2010), the original Nigerian Igbo proverb, “Ora na azu nwa,” translates as “it takes a village to raise a child (Proverb Question section, para. 6). [This] provides a framework for our schools and society to meet a cultural shift in a global society” (Hollandsworth, Dowdy, et al., 2011, p. 37). Schools and educators need other stakeholders, including parents and community leaders, to contribute in raising students to be digital citizens.

An *educator* is a person who provides instruction, including teachers, principals, administrators, mentors, counselors or other professionals in a school or learning environment. For the purpose of this study, an educator is a licensed professional in any K-12 school, college or university who works with students and learners of any age.

*Technology culture* is the technology-shaped world that we live in today. Technology culture describes society and norms that are learned, exhibited and practiced through digital and technological means. It also makes a distinct difference between online life and in-real-life.

## **Conclusion**

The context and background of digital citizenship shows that it is very much needed in today's K-12 education. As technology grows and makes its way into homes, classrooms and schools, we see how powerfully digital citizens can impact their community. For some, this is going to be a huge culture shift into technology culture. Learning how to be a digital citizen is not about any skill set, it is about an individual's mindset and attitude (Couros, 2012).

Technology is all about change and one cannot be averse to change if they want to be an impactful digital citizen. But where are educators to start in this journey towards becoming a digital citizen themselves and teaching students and families about digital citizenship in ways that are authentic and active? The research in this paper will provide educators with information and data that can help paint the bigger picture of digital citizenship today. It will work to answer what digital citizenship is, why a village mindset is necessary and how instruction can be comprehensively integrated. Resources and frameworks will be included to aid in building a digital citizenship program.

The purpose of this research is to gather current and relevant information and resources for educators in a way that jumpstarts or reaffirms their work in digital citizenship with students. Digital citizenship needs to be self-practiced and modeled so that students can learn through authentic experiences that contribute and build upon their lived realities and experiences. Limitations are understood and delimitations are set so that findings are realistic and applicable for educators, students and families. In the next chapter, a literature review is provided in order

to set the groundwork for findings and discussion in chapters four and five. The literature review will further organize key concepts of digital citizenship.

## Chapter 2: Literature Review

### Introduction

There is a profuse number of online resources and opinions around *digital citizenship*. Google those words and over 100 million results crop up. The first page of results includes sites like Common Sense Education, Edutopia and the International Society for Technology in Education (ISTE). With so much information, it is easy to become overwhelmed. The time required to critically assess and sift through these resources as a parent or educator is above and beyond many expectations. This study provides focused insight on how to put it all together so that educators can shift within today's technology culture as seamlessly as possible. Literature for this study will consist of three distinct resource types: research reports, academic articles and online teaching resources. This chapter will outline the methodology in organizing resources through categories and themes. The themes that came out of the literature review will be outlined and briefly discussed. Then, gaps in the research will be outlined. These are gaps that became prominent as resources were gathered, evaluated and analyzed. This chapter will conclude with a summary of the literature review.

### Methodology

A preliminary literature review was conducted to get a general sense of the current and available academic literature on this topic. The search terms “digital citizenship” and “schools” were used in the databases Academic Search Premier and Gale in Context: College. Results were then filtered for scholarly articles or academic journals and works that were published from 2010-2020. This yielded a total of 57 results from Academic Search Premier and 20 results from Gale in Context: College. The resources found were organized into four categories and synthesized into three broad themes. Themes were reviewed again after a second round of

research. After meeting with a database expert, the following databases were used to gather more research reports: Education Resources Information Center (ERIC) of Elton B. Stephens Company (EBSCO), Google Scholar, ScienceDirect and Sociological Abstracts. Keywords were expanded to include technology citizenship, technological literacy, teacher competency and preservice teacher education. This yielded an additional 33 resources and consisted mainly of research reports. These additional resources were evaluated, analyzed and organized into the original categories and themes since the resources supported them.

Due to the large number of resources being gathered, resources were organized into various categories. This allowed the researcher to review resources and information more effectively. Organization is key in order to build the framework around what digital citizenship is, why educators should prioritize it, and how it can be used with students and families. By using these categories, gaps were more easily recognized and labeled within the resources. The following are the four categories that were used to organize all gathered resources:

1. *Research reports* - qualitative and/or quantitative studies on internet use, perceptions of digital citizenship, fostering leaders, providing authentic digital citizenship opportunities and utilization of social networking sites
2. *Educational models and frameworks* - qualitative and/or quantitative studies on effectiveness of various teaching models or secondary research on teaching models, frameworks and theories around digital citizenship education
3. *Evaluation resources* - qualitative and/or quantitative studies that produced a tool one could use to evaluate digital citizenship in an academic setting or home setting

4. *Curriculum resources for teaching* - online sources that could be utilized by educators or families to teach and guide students in becoming digital citizens; a set of standards, shared lesson plans, or video lessons

Along with categorically organizing all resources, the resources were organized according to theme. Throughout the literature review, the researcher listed recurring ideas, subjects and topics and tagged them to each article or resource. The starting list of themes included over 25 different topics but was narrowed down to three major themes. The themes will be used to guide the research findings and discussion for this starred paper. This provides another layer for building strong foundational knowledge and recognizing overall gaps in the research. Digital citizenship is essential to the current technology culture, and it is the responsibility of educators to see that students are given guidance on what it means and how to be a digital citizen.

### **Themes**

The themes used in this study will draw together similar ideas between all of the resources. There are many different facets to digital citizenship: digital literacy, digital health and wellness, ethics, technical and device guidance, social media activism and so much more. It was appropriate to narrow down these themes so that topics could be explored in detail and the research would be comprehensively organized. To aid in this process, articles were tagged with keywords after each reading. Keywords pertained to the article category, ideas or takeaways that summarized the information, used frameworks and models, and research participant demographics. These keyword tags were used to filter and group articles together in order to outline major themes from the research. The three major themes are outlined in this section. The themes are: technology evolution, parental perspectives, and curriculum and instruction.

### *Technology Evolution*

Technology is constantly being improved on and advertised as faster and *smarter* than before. These changes have affected how all people interact online and use the internet worldwide. The evolution of technology is not a phenomenon unique to the United States. The global median for internet use, as of 2016, is 67% of adults and that number continues to grow every year (Poushter, 2016). Countries with higher wealth tend to have more internet users, but emerging and developing countries have also been making rapid gains in internet access (Poushter, 2016). Widespread internet access has opened the door to the rapidly changing technology culture. Through the London School of Economics and Political Science, Livingstone, Haddon, Gorzig and Olafsson (2011) conducted interviews and an online survey with over 25,000 students ages nine through 16 to get a better picture of how children in Europe interact with the internet. They and other researchers found that all participants began using the internet through school work or playing single player games and that 75% interacted through online communication sites (Livingstone et al., 2011). In 2018, Pew Research Center released a report on teens ages 13-17 in the United States and their usage of social networking sites – over 700 teens and over 1,000 parents participated in this study. It was reported through the survey that 95% of teens have a smartphone and 85% have access to a desktop or laptop computer (Anderson & Jiang, 2018). With a high level of internet access, teens were more likely to use social networking sites. The top three used social networking sites among teens were, in order of highest ranking to lowest, YouTube, Instagram, and Snapchat (Anderson & Jiang, 2018). For teens, Facebook came in fourth and Twitter after that. This was a significant shift in social media use by teens since the last survey report in 2015, when Facebook was the reported the most used social networking site (Anderson & Jiang, 2018). Martin et al. conducted a study in 2018 that

confirms the data from Pew Research Center. Over 500 students, ages 12-16, in two different Southeastern U.S. middle schools completed a survey reporting their online social media use. Results showed that the top three most used social media sites among middle schoolers were Instagram, YouTube, and Snapchat (Martin et al., 2018). In this study, Vine came in fourth and Facebook came in sixth. This is most likely due to the explosive popularity of Vine when it was first released in 2018. If a study was conducted today, Vine would not be on the list at all since it was archived in 2019 (<https://help.twitter.com/en/using-twitter/vine-faqs>). TikTok, a video-sharing social networking site, would most likely be the app that has replaced it and might even be more popular than Snapchat. This clearly proves just how quickly teens shift between trending social networking and social media sites. New platforms and applications (apps) are constantly being created. There are over 1.85 million apps available for smartphone users to download and, between the Google Play Store and iOS App Store, there were over 114 billion apps downloaded in 2019 (Iqbal, 2020). As technology evolves, the way it is being used has changed as well.

Around the world, the high use of the internet and social networking sites has led to a new kind of political activism: digital activism, which is defined as political and social efforts to make change conducted online through the use of digital technology (Gorkem, 2017, p. 104). In Turkey, a web-based survey was completed by 302 participants who were a part of online groups with an activism background. This study found that the majority of participants perceived digital activism as an important tool in supporting traditional activism, but not effective without physical action (Gorkem, 2017, p. 115). According to a study conducted in Iran around the My Stealthy Freedom movement, there was “still a prominent emotion and consequential phenomenon in [the]online social movements” (Stewart & Schultze, 2019, p. 16), specifically

through the Facebook fan page and White Wednesday online campaign. In a study conducted in China, researchers gathered data and conducted personal interviews around political protests and found that the use of social media garnered more support and empowered the population to reassess the national media outlets (Brunner, 2017, p. 674). Three on-campus organizations in a United States Midwestern University participated in a study that found that social media activism was effective in mobilizing young people, especially if the organization could first create successful opportunities for participants (Velasquez & LaRose, 2015, p. 469). Digital activism is on the rise and has become an integral piece in many social movements today because it has proven to be an effective tool. The way we use technology changes as rapidly as technology itself and communities are finding ways to keep up.

### *Parental Perspective*

Educational communities consist of students, families and educators. Educators rely on home involvement in order to ensure the highest levels of success for their students. In a study conducted in 2018, researchers Wang and Xing found that parental involvement positively influenced a student's digital etiquette and safety. Having parents involved in and monitoring their online activity decreased the amount of risky online activity from students. The EU Kids Online survey also concluded that parents find it valuable to know how their child is using the internet and that children do not mind their parents knowing what they do online (Livingstone et al., 2011). Elgharhah and Ozdamli (2020) conducted a survey of 252 parents in Turkey and found that more than half of the parents knew how many hours their child spent online chatting, had online rules and agreements with their child, and were confident that their child understood how to be safe online (p. 295). Adults want to be involved in a child's online life and it can make a difference in shaping how they interact and engage online. 85% of students even report that

parents or guardians are their source of internet advice (Ribble & Park, 2019, p. 229). According to the literature, both students and parents view parent involvement as having a positive effect on internet use.

Parental involvement is critical for students to be successful in their digital citizenship, but parents are more worried about keeping their children away from the dangers of the internet. Since students are beginning to access the internet, use social networking sites and own a smartphone at younger ages, parents are becoming more concerned for their safety (Martin et al., 2018, p. 213). The Family Online Safety Institute (2020) conducted an online survey with 1,200 parents of kids ages 2-17 and reported that most parents are concerned with their child being exposed to sexual content (Family Online Safety Institute, 2020, p. 7). Another study of 1,058 parents in Singapore with children under five found that parents were most concerned about vision deterioration, internet addiction and social incompetence as they grow (Ebbeck et al., 2015, p. 130). As with most communities, there is an awareness and intervention spectrum when it comes to supporting students in their digital lives. In one qualitative study, the researchers found that parents tend to be more reactive than proactive when it comes to digitally restricting or supporting their children (Bartau-Rojas et al., 2018, p. 77). Some take a hard stance of rules and regulations when using the internet, whereas others take a more communicative role in developing online values. A study in Belgium surveyed 357 families in order to analyze parent-child communication in regard to internet use and found that adolescents who accepted parental rules were less likely to contact strangers and spent less time on social media (Symons et al., 2019). There is no research-based recommendation on what level of internet restriction by parents is most effective, but a study by Cetinkaya (2019) in Turkey supports the claim that as children get older increasing parental restrictions on internet use increases the potential for risky

online behavior and internet addiction. The other side effect of parents increasing internet restrictions is that the child's level of critical internet skills decreases due to lack of web exploration (Sanchez-Valle et al., 2017). A study conducted in Spain with 765 students found that a more open and non-restrictive home environment correlated to higher internet skills and safer online behaviors (Sanchez-Valle et al., 2017, pp. 109-110). Another study interviewed 44 parents in Spain to evaluate various beliefs and strategies that parents use when trying to mediate the internet use of their child (Bartau-Rojas et al., 2018). Bartau-Rojas et al. recommended for parents to develop their digital skills, their parental skills for restricting and/or supporting their child's internet use, and work to collaborate with schools (2018, p. 78). It has always been clear that a student's education benefits from parental involvement – this now includes digital citizenship. Parents are aware of the need to guide and teach their children how to be online, but they seek guidance and support from educators on how to mediate online behaviors.

### *Curriculum and Instruction*

Schools have shifted into 21st century education because students are now 21<sup>st</sup> century learners. This is built upon the changing economy need for highly skilled and highly educated workers (Zhao, 2015, p. 130). There is direct urgency for the education system to keep pace with this since students are entering a new innovative and entrepreneur-minded work force (Zhao, 2015, p. 132). In 2016, ISTE published standards for students and educators that outlined seven skills that lead to success in today's technology culture (<https://www.iste.org/standards/for-students>). The seven skills for 21<sup>st</sup> century students are for them to be empowered learners, digital citizens, knowledge constructors, innovative designers, computational thinkers, creative communicators and global collaborators. In comparison, the seven skills for 21<sup>st</sup> century educators are for them to be learners, leaders, citizens, collaborators, designers, facilitators and

analysts. These standards allow for consistency across schools and states for what a 21<sup>st</sup> century education looks like. It is important that educators teach digital citizenship to students, but it is equally important that educators learn how to be digital citizens themselves. Gudmundsdottier, Gasso, Rubio, and Hatlevik (2020) conducted a study with 1244 student teachers in Spain and Norway and found that the internet affects how they perceive digital citizenship. They recommended that digital citizenship be interspersed throughout initial teacher education if teachers are to be competent in using technology and digital skills (Gudmundsdottier et al., 2020, p. 9). In a study conducted by Xu, Yang, MacLeod, and Zhu (2019), 712 pre-service teachers were surveyed to correlate interpersonal communication skills to digital citizenship behaviors. It was found that individuals with higher levels of assertiveness, supportiveness and expressiveness had higher levels of appropriate online behaviors (Xu, Yang, MacLeod, & Zhu, 2019, p. 190). Initial teacher education is essential to sustain educators who are equipped and ready to teach digital citizenship.

Many educators agree that it is important for students to know how to be online safely, ethically and critically (Casa-Todd, 2018). From professional development to instruction and curriculum, teachers strive to learn how to help students succeed in a new world of technology and globalization. “Walk into almost any secondary school today and you’ll see students seemingly glued to their phones. Through [social networking sites], young people are... [developing] valuable 21st century skills” (Gleason, 2019, p. 27). Today’s learners are different than they were just a decade ago and today’s world requires of them a different skillset, worldview and work ethic. Social media sites are where many young people get their news and current event updates. Social networking sites are where they begin voicing their opinions and dabbling in social justice work. These online networks are a place of learning for students, and

yet they are banned or filtered out from many classrooms and schools due to outdated policies.

An acceptable use policy is not nearly enough to help students navigate today's digital society (Ribble & Bailey, 2014). The importance of and urgency for effectively teaching digital citizenship comes with this inevitable shift into increasingly technology-integrated classrooms.

Who is responsible? Much of that pressure is placed on educators as Phillips and Lee (2019)

describe:

Digital citizenship instruction is more than simply providing prepackaged lesson plans, handouts and worksheets about digital etiquette, Internet safety, and cyberbullying.

Instruction in digital citizenship involves education - for educators and for their students - about the new literacies that are in action when engaging online. (p.12)

There are in-depth, and oftentimes free, digital citizen standards, lessons, and curriculum offered online. Some of the top free resources include Common Sense Media's digital citizenship curriculum, Google's Be Internet Awesome lessons, and the ISTE standards for students and educators. Common Sense Media's curriculum focuses on these six topics: Media Balance and Well-Being, Privacy and Security, Digital Footprint and Identity, Relationships and Communication, Cyberbullying and Hate Speech, and News and Media Literacy (James et al., 2019, pp. 17-36). Google's Be Internet Awesome uses five gamified worlds to teach students about these five topics: appropriate online communication, online safety, personal safety, positive treatment online and open communication about online activity with a trusted adult (Guevara, 2019, p. 34). Educators can also stay on top of technology trends by joining professional organizations like ISTE, the Information and Technology Educators of Minnesota (ITEM) or the Association for Educational Communications and Technology (AECT). These resources provide strong foundations and a starting point for educators across the nation, but

lessons piecemealed together are not enough to provide authentic and engaging instruction. Educators themselves need to be trained and empowered to deliver and incorporate digital citizenship into their teaching and model what it means to be a digital citizen (Emerich-France, 2016). Adapting teacher licensure programs is important, but today's students cannot wait around for new teachers to graduate and come to their classrooms – they need digital citizenship skills now. “Teachers can begin where they feel comfortable and, keeping in mind their educational goals, they can always “do more” later” (Gleason, 2019, p. 28). Teaching digital citizenship, like all of teaching, does not require perfection or an expert level understanding of the content. Educators are only expected to do what they do best: teach and engage students.

### **Gaps in Research**

A plethora of literature and resources have been gathered and evaluated for a deeper understanding of digital citizenship and how it affects and change the lives of students, parents and educators. Gaps in the research were found through the literature review process. There is a need for current and updated information on K-12 student use of technology. This would include academic use and leisurely use. Furthermore, there is a lack of information on students under the age of 12 since much of the current literature focuses on pre-teen, teenage and adult use of internet and social networking sites. With internet use increasing at younger and younger ages, it is pertinent that data is collected on all age groups. Another gap in information revolves around how parents, or adults in general, view their own digital citizenship journey. “Expanding the idea of digital citizenship into the workplace provides a new understanding of how everyone should act with respect to technology” (Ribble & Park, 2019, p. 267). Educators are working to teach students how to be digital citizens so that they grow into adults who can harness the power of their digital citizenship. Research that collects data on this would provide insight into what

digital citizenship looks for adults now and could also be used as data to compare to later. The last gap revealed through this literature review was the need for quantitative and qualitative data on schools that have implemented district-wide digital citizenship instruction. There are individual case studies that focus on specific classrooms or schools, but not nearly enough to fill in the gaps of this research. These identified gaps pertain to the three themes and categories this starred paper.

### **Conclusion**

A full literature review was conducted and reflected in this chapter. This literature review included over 70 articles and resources found online through academic databases and web search engines. Resources were categorized for easier access and organization, as well as to pull together overarching themes. From the resources gathered, three themes came to the forefront: technology, parental perspectives, and curriculum and instruction. Categories and themes were used as a lens in which to review and analyze resources for deeper insight into digital citizenship for students, parents and educators. From the literature review, the researcher was also able to identify gaps in the research. The methodology behind the selection of articles and research process are outlined in the next chapter.

## Chapter 3: Methodology

### Introduction

The call for digital citizenship to be brought to the forefront of education is not new, but it grows more urgent as classrooms continue to be filled with devices and technology-enhanced curriculum. What are schools to do? How do they build a valuable foundation for incorporating digital citizenship into their everyday practices, year-to-year curriculum, and state standards? Who is responsible for planning and teaching digital citizenship? What does it even look like? Researchers and professionals across the country have spent countless hours developing various models and frameworks to build upon: Mike Ribble's Nine Elements (2017), the Self-Identity, Activity, Fluency, Ethics (SAFE) five factor model (Kim & Choi, 2018), ISTE's standards for students and educators (2016) and more. Many adults believe that young people are using social media in worst-case scenario situations, but that is not quite true (Ahlquist, 2017). Research shows that students are using social networking sites to engage with their communities. They are already on platforms that give them the capabilities to change the world and empower their voices. There is no need to reinvent the wheel with new curriculum forced upon educators to ensure that digital citizenship is taught, instead it can "slowly build, compound, and integrate seamlessly into the classroom culture" (Emerich-France, 2016, p. 29). To begin answering any of these questions and solving the problem of supporting and empowering students, parents and educators, it is pertinent to begin with research and information that is currently available. This chapter will begin with a statement of exemption from the Institutional Review Board. Then, the process used to select literature and resources is described and outlined. Next, a rationale is given for the sources used to find all literature and information. Finally, an overview of the research

timeline is given. This chapter captures the whole process of research conducted for this starred paper.

### **Institutional Review Board Exemption**

As a secondary research study, this study is exempt from the required approval of the Institutional Review Board (IRB). There were no physical or psychological procedures used on human participants of any kind. The entirety of this research was conducted using databases and search engines via the web to find and gather resources and information. The researcher conducted the review, evaluation and analysis of the resources.

### **Methodology**

The research of this paper is an analysis of research reports, academic literature, professional writings and online resources around digital citizenship. Over 70 resources and references were gathered via the internet. To begin the process, the researcher first gathered academic literature through academic databases available through the university library. Initial searches were limited to articles written in English, peer-reviewed, published after January 2010 and based in the United States. A variety of keywords pertaining to digital citizenship were used as search terms. These words included: digital citizen, digital literacy, social media, K-12, education. Upon further review, the researcher adjusted search tactics to expand the pool of knowledge and information. Searches were made to include articles published after January 2005 and based anywhere in the world. These additional keywords were also included as search terms to fill various gaps: social media, teen internet use, social networking, smartphones, technology citizenship, teacher development, online risks, and internet addiction. The results of these searches yielded an overwhelming amount of articles.

To narrow down the number of resources, the researcher conducted three rounds of elimination for each article. The first round of elimination was decided after reading each article's abstract for relevancy. The content of the research needed to be relevant to student, parent and educator use of the internet or be directly tied to digital citizenship. An emphasis was put on research reports that provided quantitative and qualitative direct data. The second round of elimination was decided after reading the remaining articles. As articles were read, the researcher annotated and evaluated each article for relevancy to any of the three guiding research questions. Afterward, articles were tagged with keywords that pertained to main ideas and takeaways that could quickly be reviewed at a later time. The third round of elimination was decided after categorizing all remaining articles in their respective categories and the three overarching themes. The categories were research reports, educational models and frameworks, evaluation resources, and curriculum resources for teaching. The three themes were technology evolution, parental perspectives and curriculum and instruction. Articles that did not fall into a category or theme were eliminated from inclusion in this study.

Resources that are not strictly academic were used in this study. These resources build a foundation for the current technology culture and include educator resources in teaching digital citizenship. After gathering, reviewing and evaluating academic literature, it was clear that there would be a need for informal knowledge and tools. To begin this part of the process, the researcher reviewed references in the remaining academic articles. Many articles referred to websites geared towards educators and social media accounts or blogs of leading professionals in the field. Following this trail also led to discovery of more tools and websites that are available to educators and parents in teaching digital citizenship. Non-academic articles were included if research reports were cited for the data presented and if the data filled a gap in the research.

Online curriculum resources and tools were included if they were built around digital citizenship. Paid programs and materials were not included since the researcher was not able to purchase and review those resources.

The process of selecting academic literature and other resources was threefold. First, academic articles and research reports were gathered, read and evaluated. Then, after eliminating various articles due to relevancy, categories and themes were generated to organize and provide deeper insight into the research. Finally, non-academic resources and tools were gathered and reviewed to include in the research as a way to fill various gaps. This process yielded over 70 articles and resources of information for this research.

### **Rationale of Source Location**

Resources for this secondary research were found in a variety of online locations. Peer-reviewed academic articles and research reports were found using:

- Academic Search Premier by Elton B. Stephens Company (EBSCO) Publishing
- Education Resources Information Center (ERIC) EBSCO Publishing
- Gale in Context Opposing Viewpoints
- Google Scholar – configured to Saint Cloud State University
- ScienceDirect Journals & Books
- Sociological Abstracts by ProQuest Publishing

Access to these databases were granted via permission as a student of a university and as a school district employee. Academic databases were used to find empirical data on the topic of digital citizenship and internet use by youth and adults. This data was evaluated and analyzed as evidence to answer the guiding research questions. Professional organizations and websites are another source of information used to map out the current state of digital citizenship in

education. These sources included Common Sense Media, ISTE, ITEM, Google for Education, Microsoft and others. As websites that are accessed by educators and communities, these resources supply an abundance of information for anyone looking to learn more about or teach digital citizenship. Resources that are not strictly academic were found via cited sources in the academic articles or through sources recommended by professional organizations or curriculum websites. Many of these resources included blogs and website articles. These sources were used to fill in the gaps in technology history and professional opinions of digital citizenship. All information resources gathered for this research was found through academic databases, professional organization websites, curriculum websites and commercial websites.

### **Timeline**

This research study had a timeline of one year for completion. The initial proposal meeting with the committee was completed during the fall semester of 2020. The final proposal meeting with the committee was completed during the spring semester of 2021. The majority of this research study was conducted throughout the fall and spring semester of the 20-21 school year. The selection process required time to read, review, organize and analyze the information found in resources. A preliminary literature review was completed in October 2020 and the full literature review was completed in January 2021 after the initial proposal was accepted. The process of analyzing and writing the following chapters was completed in March 2021.

### **Conclusion**

This chapter covered the methodology in gathering and analyzing research resources around digital citizenship. By outlining this process, the research is transparent, delimitations are rationalized, and the research can be replicated by future researchers. These procedures also provide a backdrop for what the landscape of researching digital citizenship currently looks like.

In the future, there may be different methods that are more effective or widely used in finding this information. In the chapters to come, findings and discussion of this research will be covered. Thus far, themes have been identified from the resources and data. In the next section, the themes and data will be used to answer the three guiding research questions.

## Chapter 4: Findings

### Introduction

Technology has permeated almost every aspect of our daily lives, including how we live at home. Smart home automation has become more commonplace as it has almost doubled worldwide since 2017 (Lasquety-Reyes, 2020). Research shows that by 2025 there will be an estimated 482 million smart homes worldwide with 77 million smart homes in the United States alone (Lasquety-Reyes, 2020). Why are people shifting to smart homes? Because traditional home security is no longer enough if someone wants to save more energy, simplify their lives or handle daily household tasks (Callaham, 2021). Homeowners can purchase smart thermostats that adjust heating and cooling of the home to save money and energy, connected lights and doorbells to provide real-time monitoring, and even a device to automatically vacuum their home at set times of the day. These are the homes that students are growing up in. Technology encompasses more than the device they have in their hands. The journey of learning to become a digital citizen is more urgent than ever before. The following questions were used to guide this research on what digital citizenship should look like:

- How can digital citizenship stay relevant in relation to the rapid evolution of technology?
- Why is a *village mindset* essential when it comes to developing and teaching digital citizenship, especially in a K-12 educational setting?
- How can schools provide digital citizenship instruction in a way that is comprehensive, authentic and integrated into other subject areas?

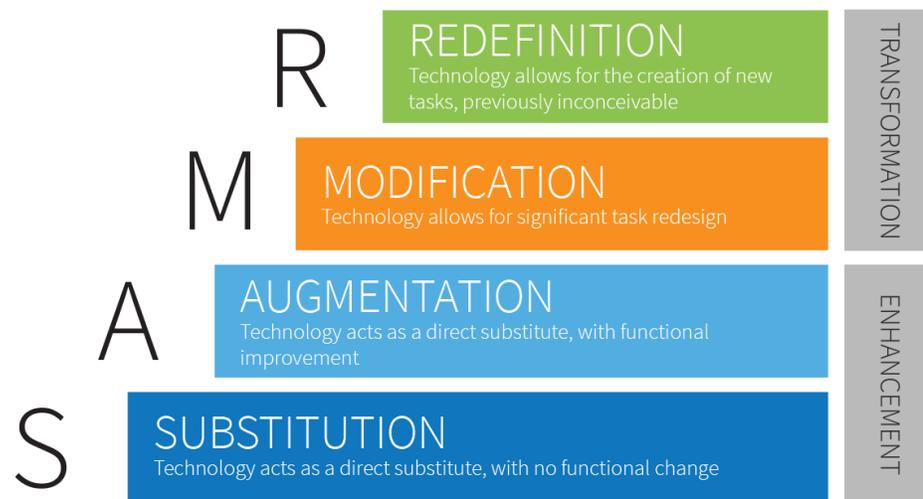
The following sections will address each question using researched evidence and understandings from the literature review.

## Staying Relevant

The first guiding research question is: *How can digital citizenship stay relevant in relation to the rapid evolution of technology?* For the purpose of this research and answering this question, digital citizenship is defined as “the continuously developing norms of appropriate, responsible and empowered technology use” (Ribble & Park, 2019, p. 10). The evolution of technology was discussed earlier in the literature review. It is known that technology use and internet access continue to increase every year for adults around the world (Poushter, 2016). In relation, internet access continues to increase for adolescents, especially with 95% of teens owning a smartphone (Anderson & Jiang, 2018). Today even our youngest students have access to smartphones. In a survey study conducted in Spain, Valez and Zuazua (2017) found that the percentage of students who own a smart phone more than doubles from 30% in third grade to 70% sixth grade (p. 113). As smart devices continue to expand, how children, teens and adults use the internet also expands and changes. Jwaifell (2018) conducted a study with 263 college students in Jordan and found that students struggled with improper use of technology in terms of digital safety. Another study in Spain found that higher internet use was correlated to a loss of perceived control in a student’s daily life and an increase in abusive internet use (Garcia-Umana & Tirado-Morueta, 2018). Additionally, Tomczyk et al. found that problematic internet use was directly tied to cyberbullying and suicide attempts for students in Poland (2020). According to a study in Spain conducted by Ramos-Soler, Lopez-Sanchez, and Torrecillas-Lacave (2018), only 56% of students in primary, secondary and high school can recognize internet risks and have the ability to act to protect themselves. Based on this data, many educators and parents feel that digital citizenship should strongly focus on safe internet use and online etiquette. This would include topics like information sharing, cyberbullying, email basics or identifying fake news.

Ensuring that students know how to use the internet and are making safe decisions develops appropriate and responsible use. It is important to teach these topics, especially at younger ages, but this only covers part of what digital citizenship is according to Ribble and Bailey (2019). By not going further than teaching appropriate and responsible use, digital citizenship education cannot stay relevant to the evolution of technology.

To dig further into answering this question, we need to look into how students are being empowered in their internet use. According to Ribble and Park (2019), to be empowered in technology use, a person possesses “the authority, power, and ownership to do something” that builds community in real life and online (p. 10). Al-Zahrani’s research of university students in Saudi Arabia had three significant findings related to empowering students: 1) more computer experience led to an increase in students educating themselves on how to connect with others, 2) more daily internet use was connected to a higher tendency for students to protect themselves online and 3) students with positive internet attitudes tended to have safer and more empowered digital experience (2015, pp. 210-211). Using the Digital Citizenship Scale they created, Choi, Cristol and Gimbert (2018) found that pre-service teachers had a strong set of technical skills, local and global awareness and networking agency, but lacked internet political action and critical perspective (p. 151). As students and educators, or anyone, increases their use of the internet, they learn more about how to use it, how to protect themselves and how to connect with others. The key to building empowerment is advancing how one connects with others. This needs to span past connecting with friends via social networking sites and into real community change that happens online and in-real-life. Puentedura’s 2006 Substitution, Augmentation, Modification, Redefinition (SAMR) Model can be used as a concrete framework in conceptualizing how to empower a person’s technology use, especially in terms of community

**Figure 1***SAMR Model*

and connection. Hamilton et al. suggests that SAMR should be used in specific contexts, avoid a rigid hierarchy and focus on process over product (2016, pp. 4316-438). One part of the SAMR Model is not more important or more effective than another – specific tasks call for various levels of enhancement or transformation. For example, obtaining petition signatures used to require a pen and paper, but with technology the pen and paper can substituted and enhanced by making it into an online form. This makes the petition easier to share with a higher number of people. The petition can also be transformed into a large group virtual event where direct action is taken together in real time by participants in the group. A person or non-profit organization might find that both tasks are necessary in reaching a broader audience. Educators and parents can use the SAMR Model to enhance or transform tasks that build community and make change in way that is clearly detailed for students. Guiding students to creation, whether that is through substitution or redefinition, is the key to empowering students as digital citizens.

*How can digital citizenship stay relevant in relation to the rapid evolution of technology?*

It is important that as individuals, students, parents and educators know how to use the internet appropriately, responsibly and with empowerment. But digital citizenship is about more than the individual. To stay relevant in today's technology culture, digital citizenship needs to encompass the individual's role in the community and society. Every person is responsible for actively making positive change in online spaces in a way that changes real life outside the internet.

### **Village Mindset**

The second guiding research question is: *Why is a village mindset essential when it comes to developing and teaching digital citizenship, especially in a K-12 educational setting?* A village mindset is the understanding that success and change can only come about when people work together – in this case, digital citizenship is most effective and successful when students, parents and educators work together and learn from each other (Hollandsworth et al., 2011). There are a number of studies that suggest student involvement in the making of internet rules and regulations increases student compliance to restrictions from authority (Cetinkaya, 2019; Sanchez-Valle et al., 2017; Symons et al., 2019; Bartau-Rojas et al., 2018). Involving students in this process gives them ownership over their actions and responsibility to handle consequences. Students are a significant piece in upholding their own digital citizenship. Many children begin their internet use through playing games and doing schoolwork (Livingstone et al., 2011) – streaming movies would also be on that list today. Because of this, a student's initial exposure to digital citizenship is usually through school.

Educators are at the forefront of digital citizenship education. Hollandsworth et al. conducted a survey in 2011 and 2016 and found that teacher and administrator awareness of digital citizenship had increased in the United States and is most likely continuing to increase

(2018). This is largely in part of technology devices becoming more prevalent in K-12 schools. Teachers who teach third through fifth grade are already beginning to teach digital citizenship because students are experiencing more issues due to increased levels of internet use (Lauraicella et al., 2020). At higher grade levels, educators are incorporating social networking sites, online projects and community outreach activities into their lessons (Hilton, 2016; Gleason, 2019; Gleason & von Gillern, 2018; Pareja & Bluez, 2017). Digital citizenship for educators also encompasses principals. Thannimalai and Raman (2018) surveyed 90 principals and 694 teachers from their buildings and found that “a principal’s support or ability in conducting professional development in schools indirectly helps facilitate or enhance the integration of technology in the classroom by teachers” (p. 221). Educators are more aware of digital citizenship and work to include technology to enhance or transform their lessons, but it has become apparent that parents are not as aware of digital citizenship (Hollandsworth et al., 2018, p. 526). According to Curran and Ribble, digital citizenship “most likely [starts] in the home, so parents must be included in the education process in order to be prepared on how to use technology responsibly” (2017, p. 40). Including and having the support of parents has always been an important piece of K-12 education, but digital citizenship is uncharted territory for educators and many parents.

To start, parents and families need to be included in the digital citizenship conversations. Mark and Nguyen (2017) conducted two workshops with 52 total participants made up of school principals, technology teachers and parents. In these workshops, participants worked together to complete a variety of objectives that helped the group work towards ways to decrease internet-related issues in schools. Three of the four key takeaways from the workshops revolved around consistency between school and home, including regular communication, rules, and collaboration (Mark & Nguyen, 2017, p. 70). Takavarasha, Cilliers, and Chinyamurindi (2018)

conducted a study that showed how disconnection between home and school affected students. Using the Active Theory as their framework, Takavarasha et al. (2018) interviewed and surveyed 148 South African university students. They found that students lacked or had underdeveloped digital skills because “the home community did not allow the students to perpetuate the technical training acquired at university [and] the university was not enhancing ethical values from home” (Takavarasha et al., 2018, p. 11). When school and home are fostering different technology values and skills, students are less likely to develop good digital citizenship practices. A strong theme that came out of the literature review was the perspective of parents on technology and its effect on children and teens. There are multiple research studies that found a less restrictive parent mediation style led to higher internet self-efficacy and stronger digital citizenship skills (Wang & Xing, 2018; Ribble & Park, 2019; Bartau-Rojas et al., 2018; Cetinkaya, 2019; Sanchez-Valle et al., 2017). This does not mean that parents should not have any internet rules, in fact Wang and Xing proved that teens developed better digital citizenship skills when parents were more involved in their online lives (2018, p. 194). Parents need to be involved in a student’s online life at home and at school. Working together with the school will ensure that students are being held accountable at home and at school and working together with parents will ensure that schools are representing parent values.

*Why is a village mindset essential when it comes to developing and teaching digital citizenship, especially in a K-12 educational setting?* Because “every one of us benefits from understanding the current digital technology that is used and what will be applied in the future” (Alqautani et al., 2017, p. 98). A unique four year case study in Italy showed how digital citizenship brought a community together (Ferrari et al., 2018). The process started at the very top with government policy makers creating a plan that included school investments, teacher

training, parent communication teams and even a process for building capacity to overcome various issues (pp. 14-17). It took everyone in the community to be aware and take up the responsibility to change lives through digital citizenship. In this same way, it is going to take a village to ensure that we are all held accountable for being good digital citizens.

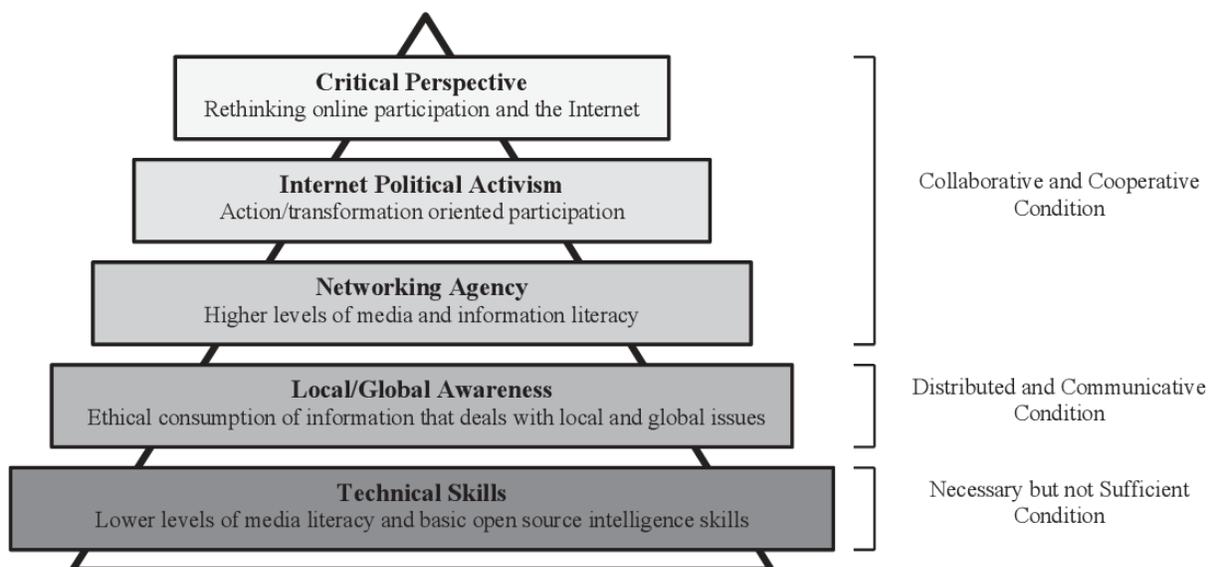
### **Authentic Practice**

The final guiding research question is: *How can schools provide digital citizenship instruction in a way that is comprehensive, authentic and integrated into other subject areas?*

Because digital citizenship encompasses so many different aspects of technology use, it is necessary and critical to first gauge the target audience's level of digital citizenship. Nordin and a team of researchers were able to create a seventeen item survey to help measure digital citizenship behaviors (2016). The survey was administered to 391 undergraduate students in Malaysia and was found to be a well-functioning measurement tool (Nordin et al., 2016, p. 78).

### **Figure 2**

*Five Factors and three conditions of digital citizenship*



Choi, Glassman, and Cristol (2017) developed a 26-item Digital Citizenship Scale to assess an individual's sense of digital citizenship, which could be administered to students, educators and families. The diagram in figure two shows how this tool breaks down digital citizenship into five factors and three conditions to represent the complexity of digital citizenship. Choi et al. used this scale in 2018 to find out teachers' levels of digital citizenship. It was also used in another study by Kara (2018) to gauge levels of digital citizenship for 435 university students. By using either of these survey tools, a facilitator could get an initial measurement of digital citizenship and plan their next steps.

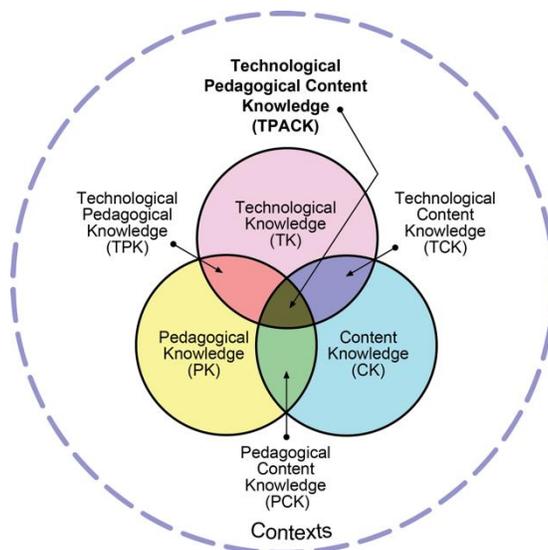
Educators and parents do not need to start from scratch or re-invent the wheel when it comes to teaching students about digital citizenship. There is a plethora of tools and resources online, many of which are free. The following are tools that cropped up consistently throughout the literature review: Common Sense Media's digital citizenship curriculum, Google's Be Internet Awesome, Netsmartz Kidz, DigCit Commit, Microsoft Education Center's digital citizenship lessons, The Good Play Project's Digital Literacy and Citizenship Curriculum, BrainPop's digital citizenship curriculum, ISTE's 2016 Standards for students and educators, Everfi, Facebook's Digital Literacy Library, Safe Online Surfing from U.S. Department of Justice, and KQED's learning platform. Again, these are just some of the resources available to educators and families wanting to learn and teach about digital citizenship.

Educators also have access to skills and trainings that allow them to synthesize various frameworks and models in order change and adjust their teaching practices. The SAMR Model, previously discussed, is a strong place to start if an educator wants to begin creating authentic digital experience for students. The TPACK Model stands for technological pedagogical content knowledge, which combines those three aspects within the context of education (Hilton, 2016, p.

70). Hilton (2016) further advocates for the use of both the SAMR Model and TPACK Model hand in hand as an effective way to engage in all aspects of digital citizenship (p. 72). Using these models, educators can more efficiently create and teach students through authentic digital

### Figure 3

#### *TPACK Model*



experiences. This can look like and include a variety of tasks and objectives. Educators can teach visual literacy through selfies (Hollandsworth et al, 2018), use current digital media to create historical timelines (Pareja & Bluez, 2017), utilize social media as ways to share student work or campaign positivity and change (Reid & Boyer, 2013; Aldosari et al., 2020). Because technology is evolving so quickly, educators and parents need to meet students where they already are in online spaces.

*How can schools provide digital citizenship instruction in a way that is comprehensive, authentic and integrated into other subject areas?* It starts with knowing where the students are and accessing any and all previous knowledge. It looks like educators getting trained in various models, tools and standards to ensure there is a foundational understanding of digital citizenship.

Then, giving educators time to grow as digital citizens and practice teaching digital citizenship with their students.

## **Conclusion**

Technology is a part of everyday life for many people worldwide. It is in our workplaces, our schools and even our homes. It evolves so quickly and already looks different than what it looked like a year ago. It is our responsibility as digital citizens to be empowered and empower others to use the internet for positive change that affects the real world. Digital citizens include everyone who has or has had an online presence and influence. Our diligence and growth is needed in order to sustain digital citizenship now and for years to come. To get to that level, educators will need to meet their students where they are and offer authentic experiences for them to interact with the world around them. The literature review and research in this starred paper highlighted important aspects of digital citizenship and provided ample resources, tools and examples to follow. The following chapter will discuss any further implications and suggestions of this research.

## Chapter 5: Conclusion

### Introduction

The year 2020 was overwhelmingly defined by the coronavirus pandemic. Many communities worked tirelessly to maintain a sense of normalcy through numerous restrictions, orders and mandates. Then two and half months into the national stay-at-home order, the murder of George Floyd in Minneapolis sparked the conversation of racial injustice in America for so many who continue to ignore it (Molla, 2020). Live coverage of the incident was posted on social media through a video recorded using a mobile phone and suddenly this pandemic within a pandemic rippled into protests around the globe in support of anti-racism (Zilles, 2020). Social media and social networking sites allowed for Black Lives Matter to organize nationwide protests and provide communities of support during the stay-at-home order (Zilles, 2020). Applications, like Signal and Citizen, skyrocketed in downloads and social media sites, like Twitter and Facebook, were flooded with various campaigns (Molla, 2020). Because of technology people were able to stay connected. Through social media activism people were able to mobilize the population into action. This is a prime example of how digital citizenship can be used to shape the world around us. Digital citizenship is essential for anyone who lives in today's technology culture. By being online we take up the responsibility to be respectful of others and the law, but also to create and give back in a way that empowers others and holds them accountable.

### Results

Literature was gathered online from a variety of databases and professional resources. Over 70 resources were included and about half of those resources were research reports highlighting the topics of digital citizenship or internet use around the world. This research was

focused on how digital citizenship is relevant today, who needs to work together to make a difference in digital citizenship and how to authentically engage in digital citizenship education. Digital citizenship can stay relevant by teaching appropriate and responsible internet practice at a younger age due to the increase in internet use by young children. To keep up with the pace of technology evolution, digital citizenship education needs to expand past safety and rules for the individual and move into global awareness and critical perspectives. In this way, digital citizenship is not just a substitution for connection, but a way in which connection is totally redefined by global access. It is necessary for everyone to do their part in this work. Students need to take up responsibility for their own learning. Parents need to do the same, model digital citizenship and work with schools to facilitate internet skills and values. Educators need to ensure they are employing good digital citizenship practices, providing real-life internet applications for students and connecting with parents to support them with digital citizenship at home. All internet users today are constantly exposed to news and social media via their smart phones. Children, teens and adults felt the repercussions in real life and online of the murder of George Floyd throughout the summer of 2020. It was a tragedy, but also an opportunity to support one another, show empathy and empower change. For digital citizenship to be empowered it needs to stay relevant to current events and technology, to be pursued by everyone, and provide opportunities for real-life application.

### **Limitations**

The research of this starred paper was limited in the accessibility to published resources. All resources were found using databases and online websites that were free to use due to lack of funding. Two books were purchased after being referenced multiple times in multiple literature. These books were purchased using the researcher's personal funds. Throughout the literature

review many resources required payment, especially resources for educators around curriculum and teaching standards. Accessibility to international literature was hindered by a language barrier. If the article was not translated to English, the researcher was not able to read it.

Research was limited in time and labor capacity of the researcher. The entirety of the research and writing was completed in one year by one researcher. The gaps found in the research were also limitations, including data specific to schools that officially teach digital citizenship, data on effectiveness of various standards and curriculum and data around elementary-aged students and digital citizenship.

### **Suggestions**

Suggestions for further secondary research would include deeper searching into initial teacher education, digital citizenship in various cultures and community-wide digital citizenship implementation. Including more data and studies around teacher preparation programs would provide a base foundation for building digital citizenship into pre-service teacher education. Specifically comparing perceptions, beliefs and challenges with digital citizenship in various cultures around the world would provide insight into various ways in which to implement digital citizenship education. Finding more case studies that focus on one community integrating digital citizenship from the top down, like the four year study from Ferrari et al. (2018), would give a more comprehensive process for what digital citizenship should look like.

Suggestions for research reports to collect data would include researching the impact of digital citizenship on the adult workforce and how parents can implement digital citizenship at home. Digital citizenship is relatively new but has been around since 2007. That means that there are adults in the workforce who have been exposed to digital citizenship education. How does that background help or hinder their professional work? Which professions, if any, do not benefit

from digital citizenship? Would professionals benefit in their current line of work from digital citizenship? This starred paper discussed parent perspectives on digital citizenship and the importance of involving parents in the process. Further studies should be focused on families who have strong digital citizenship skills and how they implement digital citizenship in the home environment. This goes beyond the research of parent mediation styles in reaction to problematic internet use. These suggestions would build upon the understandings draw from this research.

### **Conclusion**

The landscape of technology and the internet world changes with every year. Students are getting online at younger ages without any thought of how connected they actually are. Parents and families are aware of issues that might arise with internet use and try to protect children from the internet or take a “hands-off” approach with teenagers. Educators are aware of digital citizenship, but still lack the time and resources to effectively teach digital citizenship. The purpose of this starred paper was to research how to effectively empower students, parents and educators to take up their digital citizenship journey and empower others to follow suit. To do this, there was a focus on three topics: 1) digital citizenship in relation to the rapid evolution of technology, 2) the importance of a village mindset in developing and teaching digital citizenship and 3) providing authentic experiences of digital citizenship. A literature review was conducted using over 70 resources that included articles, research reports and teaching resources. The outcome of this literature review was three overarching themes that would be used to answer the guiding research questions. The themes were technology evolution, parental perspectives and curriculum and instruction. After conducting the secondary research, it was found that digital citizenship stays relevant to today’s technology culture by expanding past individual responsibilities into global responsibility. Because this is a worldwide phenomenon, it is

essential that everyone is taking part in digital citizenship. Students, parents and educators need to keep each other accountable and empower one another to continue growing as digital citizens. To grow strong foundations of digital citizenship, one needs to be engaged in authentic and real-life applications for technology and internet use. “Digital citizenship is as much a responsibility as it is a possibility” (Choi et al., 2017, p. 101). Digital citizenship holds the possibility of bringing the global community together.

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