Routledge
Taylor & Francis Group

A Concept Analysis of Digital Citizenship for Democratic Citizenship Education in the Internet Age

Moonsun Choi
The Ohio State University

Abstract: Despite the importance of promoting socially responsible citizenship in the Internet age, there is a paucity of research on how digital citizenship or digital citizens might be defined and/or investigated. This study found 4 major categories that construct digital citizenship: *Ethics, Media and Information Literacy, Participation/Engagement*, and *Critical Resistanc*e. Based on these comprehensive and interconnected categories of digital citizenship, the author argues that digital citizenship needs to be understood as a multidimensional and complex concept in connection with an interrelated but non-linear relationship with offline (place-based) civic lives.

Keywords: concept analysis, critical resistance, digital citizenship, digital ethics, media and information literacy, participation/engagement

> I imagine one could say: "Why don't you leave me alone?! I want no part of your Internet, of your technological civilization, of your network society! I just want to live my life!" Well, if this is your position, I have bad news for you. If you do not care about the networks, the networks will care about you, anyway. For as long as you want to live in society, at this time and in this place, you will have to deal with the network society. Because we live in the Internet Galaxy. (Castells, 2001, p. 282)

  Correspondence should be sent to Moonsun Choi, Center on Education and Training for Employment, The Ohio State University, 1900 Kenny Road, Columbus, OH 43210. Email: choi.811@osu.edu
  Color versions of one or more of the figures in the article can be found online at www.tandfonline.com/utrs.

As Castells (2001) argued in his book, *The Internet Galaxy*, it is impossible to deny that we are living in a digitalized and networked society, even if we fear and escape the often-negative influences of the Internet. For instance, Internet trolls sometimes infiltrate online communities and then use their posts to disrupt and ultimately destroy not only the community, but also specific members (e.g., some subreddit communities). Digital warriors use the Internet to influence and potentially recruit vulnerable users into extreme causes (e.g., the recruitment of adolescents by the Islamic State).

Web-based activities have affected the ways humans think, the ways they communicate with others, and the way they generally participate in society (DiMaggio, Hargittai, Neuman, & Robinson, 2001; Dutton, 2005; Glassman, 2012a; Palfrey & Gasser, 2013). Put another way, emerging digital media and web-based networking environments allow people to adopt new perspectives toward the self, the other, their community, and the world at large. In particular, for more digitally oriented generations, boundaries that differentiate online and offline are becoming more transparent (Tapscott, 2008). At the same time, many scholars across diverse fields have started to consider the Internet as progenitor of new (cyber) spaces that empower individuals to actively engage in civic life in ways closely related, and at times going beyond, traditional conceptions of citizenship (Banaji & Buckingham, 2013; W. L. Bennett, Wells, & Rank, 2009; Blevins, LeCompte, & Wells, 2013; Crowe, 2006; Makinen, 2006).

The issue of citizenship is particularly salient for social studies educators. Going back almost a century, the issue of integrating a sense of citizenship into school curricula has been a central, but at times a divisive, topic in education (Fallace, 2009; Longstreet, 1985). In *Democracy and Education*, John Dewey (1916) directly addressed "civic efficiency" or "good citizenship" based on experience and political and social participation in one's community as one of the primary purposes of education. The central role citizenship plays in social studies education makes it imperative that we understand how the concept of citizenship is defined and reinterpreted in the Internet age. More specifically, how can we define citizenship in the Internet era? Do we need to have a different approach to citizenship more attuned to 21st-century technologies? Are previous notions of citizenship still applicable in a networked and digitalized society? What are the similarities and differences between the exiting understandings of citizenship we have brought with us from the 20th century?

To begin the process of addressing these questions, this study uses a concept analysis methodology (Rodgers, 1989) to explore and bring together the different threads of citizenships that have been discussed and investigated as the Internet has gained deeper penetration in the social fabric. I use this methodology to identify major categories/elements that might comprise a cohesive, well-defined concept of digital citizenship, taking into account how these categories/elements have changed over the last decade. I hope this

analysis contributes to an expanding knowledge base regarding citizenship that establishes a rigorous definition for 21st-century citizenship studies and education and provides useful ideas for teaching citizenship in social studies education.

THREE DIFFERENT CONCEPTIONS OF CITIZENSHIP AND EDUCATION

This article builds on the understandings of existing knowledge and conceptions of citizenship. I extend traditional and critical approaches to citizenship, such as cultural/multicultural and global/cosmopolitan citizenship to provide a rigorous definition of digital citizenship. The idea of open-source intelligence suggests that individuals use crystallized, centripetal concepts as a base from which to reach out to the faster moving, fluid information streams of the Internet (Glassman & Kang, 2012). In much the same way, I see traditional and critical approaches to citizenship providing a firm base from which students can experiment with the free flowing, often non-hierarchical and/or non-linear approaches to online community and citizenship.

Traditional Approaches to Citizenship

The concept of citizenship is traditionally framed as a "nationally bounded membership" (Fischman & Haas, 2012) or a "legal membership" (Banks, 2008) in a nation-state. As a legislative term, the notion of citizenship provides people living in these nation-states with certain civil, social, political, and economic rights and responsibilities. The most important qualities for being a (good) citizen from this perspective are to obey the laws and regulations, vote, and pay taxes. This traditional approach to citizenship focusing on rights and responsibilities was developed out of the emergence of the modern nation-state in Western countries during the 17th century (Castles & Davidson, 2000). In a period when territorial integrity of nation-states was important, their relative autonomy was fundamentally based on national citizenship. Nation-states strived to provide their citizens with constructed homogeneous national cultures. "Homogenization" was a key strategy of the nationalist project and an "ideology of distinct and relatively autonomous national cultures," pervasive from the 17th through the 19th centuries (Castles & Davidson, 2000, p. 8).

Marshall's (1964) three elements of citizenship (civil, political, and social elements) are the widely accepted definition of traditional citizenship (Banks, 2008). The civil elements consist of individual rights, such as freedom of speech, thought and faith; the right to own property; and the right to justice. The political elements offer citizens a chance to exercise power by participating in the governing processes of the community. Finally, the social

elements are composed of economic welfare, security, and social heritage in the national civic culture.

Similarly, there are two dominant perspectives of a contemporary concept of citizenship (Dagger, 2002; Rogers, 2002; Schuck, 2002). The first is a *civic republican* view, which puts an emphasis on participation in a political community at a local, state, and/or national level. From this perspective, "cooperative participation in pro-government activities" (Knight Abowitz & Harnish, 2006, p. 657), such as voting, volunteering, and petitioning, are essential parts of individual's civic duties. The second is a *liberal framework*, which emphasizes individuals' civil, social, political, and economic rights as the essential elements of citizenship. In terms of these two dominant perspectives, the civic republican perspective is often highlighted in citizenship education to promote active citizens. Students are educated to national values and norms by learning responsibilities and obligations of being good citizens as part of classroom activities (Castles & Davidson, 2000).

Critical Conceptions of Citizenship

Many scholars have challenged traditional conceptions of citizenship, arguing that true citizenship is more closely related to identity and a sense of community (Abu El-Haj, 2007; Banks, 2008; Ong, 1996; Osler & Starkey, 2003; Subedi, 2010). These scholars believe that even if traditional conceptions of citizenship are universal and influential in the field of citizenship studies, these perspectives do not include many ethnically, linguistically, religiously, and culturally marginalized and oppressed peoples who are often denied full rights of citizenship. Furthermore, these definitions do not include the phenomena of multiculturalism (e.g., Banks, 2008; Ong, 1996; Rosaldo, 1997) and globalization (e.g., Agbaria, 2011; Merryfield, Augustine, Choi, Harshman, & McClimans, 2012; Pike, 2000), which are pervasive in the current society. For these reasons, a number of educators and other researchers expand understanding citizenship to cultural/multicultural and global/cosmopolitan citizenship.

The issue of citizenship is complicated by increasing migrations across national boundaries, leading to heterogeneous populations and cultural diversity in nation-states. Cultural differences and social marginalization are often interrelated, creating ethnic minority based groups with disadvantaged and relatively isolated positions in society. Cultural citizenship is a theoretical lens to understand these structural inequalities where dominant narratives of citizenship generally serve the purposes of middle-class White males, while people who differ from the majority population(s) in ethnicity, race, gender, sexuality, religion, and age are marginalized and/or oppressed (Flores & Benmayor, 1997; Maria, 2005; Ong, 1996; Rosaldo, 1997). In terms of immigration, transnational communities, and border crossings, it is certain that immigrant

and undocumented people can have different perspectives on their national identities, belonging, and citizenship. Some scholars argue people need to know who they are, what cultural elements contribute to their identities, how their communities affect them, and what political issues are related to their status to become active citizens (Abu El-Haj, 2007; Brayboy, 2005; Fresnoza-Flot, 2009; Kim, 2000; Sone, 1979; Suarez-Orozco, Yoshikawa, Teranishi, & Suarez-Orozco, 2011).

Global citizenship is shaped by recognizing an interdependent/interconnected world and engaging with that world actively (Andrzejewski & Alessio, 1999; Merryfield, Augustine et al., 2012). Because of capital and cultural movement, as well as human immigration as a result of globalization, global mindedness and consideration of global issues is increasingly emphasized in global citizenship studies. Some scholars focused on cosmopolitan citizenship on the basis of global/international human rights (Benhabib, 2004; Dower, 2003; Nussbaum & Cohen, 1996; Osler & Starkey, 2003). These scholars argued that homogenous cultural characteristics of the nation-state are important to national citizenship, while cosmopolitan citizenship including cultural diversity, minority groups, and their belongings are the most salient elements of global citizenship. Osler and Starkey (2003) explained that cosmopolitan citizenship is needed in a global context where diverse students can recognize local, national, and global identities and value their own cultural heritage and religious background.

In partial response to immigration and globalization, cultural/multicultural and global/cosmopolitan citizenship have been increasingly included in the discourse on citizenship. These expansive forms of citizenship can be understood as critical citizenship because they represent an attempt to critique the predetermined social construction of community (Knight Abowitz & Harnish, 2006). This is closely in line with Banks's (2008) transformative citizenship, which is defined as an active citizen who challenges the status quo and pursues social equality, as well as Westheimer and Kahne's (2004) justice-oriented citizen. Accordingly, a vast array of teaching/learning strategies and resources that encourage students to become good citizens while fostering critical mindsets are continuously being developed (e.g., Banks, 2008; Merryfield, Badang, et al., 2012; Pike, 2000).

Internet-Driven Approaches to Citizenship: Digital Citizenship

In addition to active and meaningful academic conversations regarding what citizenship or citizenship education is needed in a multicultural and global age, the information revolution of the late 20th and early 21st centuries has brought various citizenship-related questions created by prevalent and burgeoning use of the Internet: What distinguishes digital citizenship from other

concepts of citizenship in the digital age (e.g., W. L. Bennett et al., 2009; W. L. Bennett, Wells, & Freelon, 2011)? What role does the Internet play as a tool for civic engagement (e.g., Mossberger, 2009; Mossberger, Tolbert, & McNeal, 2008; VanFossen, 2006)? How can teachers promote the development of informed and engaged digital citizens in the Internet age (e.g, Blevins et al., 2013; Crowe, 2006)?

To a large extent, studies of citizenship in connection with the Internet have tended to bifurcate. On one side, researchers have focused mostly on reinterpreting citizenship, using existing concepts of predominantly cultural citizenship (Goode, 2010; Hermes, 2006; Pajnik, 2005) to develop additional layers of citizenship, which can be more applicable to the Internet age. These scholars have examined how cultural citizenship can play a role in modern media society or Internet-based communication. On the other side are scholars who acknowledge that the Internet is pervasive in human activity, including civic activities. These scholars have started to use a new term, digital citizenship, that is often defined as "the norms of appropriate and responsible behavior with regard to technology use" (Ribble, 2004, p. 7) or "the ability to participate in society online" (Mossberger et al., 2008, p. 1).

However, there are few digital citizenship studies in education, especially social studies education, which is where citizenship studies often find their home (L. Bennett & Fessenden, 2006; M. J. Berson & Berson, 2004; Blevins et al., 2013; Crowe, 2006; Hicks, van Hover, Washington, & Lee, 2011; Nebel, Jamison, & Bennett, 2009; VanFossen, 2006). Many studies focused on strategies for integrating new information technologies into classrooms (e.g., Franklin & Molebash, 2007; Hostetler, 2012), such as providing helpful and useful information, such as relevant websites and online resources, that can be utilized in everyday teaching practices. In particular, Hicks, Lee, Berson, Bolick, and Diem (2014) provided and revised specific and concrete guidelines for using technologies to augment civic practices for social studies teachers. Recently flipped classroom or gamification has been emphasized in teaching and learning in many domains (Educational Technology and Mobile Learning, 2014). However, these types of studies often do not provide rationalizations for why students and teachers should use Internet-based technologies, especially relating to lifelong learning. Additionally, researchers often fail to identify the types of knowledge and skills that help teachers and students think critically and act responsibly beyond general discussions of effective use of the Internet and technology.

To gain an expanded knowledge baseline and provide comprehensive categories of digital citizenship for better 21st-century civic education, this study examines how the concept of digital citizenship has been defined, used, and practiced during the past 10 years. This effort will hopefully help in identifying ultimate goals for citizenship education in the information age while supporting underlying themes and specific ideas of teaching digital citizenship.

RESEARCH METHOD

Concept Analysis

A concept analysis method was used to address two research questions: (1) What elements might constitute a cohesive concept of digital citizenship? and (2) How has the notion of digital citizenship evolved over the past 10 years? A concept analysis is an effective method to identify key attributes of a concept and to provide clarity for abstract constructs or those that are unclear in use. It is regarded as a significant type of inquiry to expand existing knowledge in a certain discipline (Rodgers, 1989; Walker & Avant, 2011).

Wilson (1963) pioneered development of specific steps as methodological guidelines for high school students to easily analyze concepts while improving cognitive and writing skills. Although establishing a rigorous concept analysis method was not Wilson's intent, his work was widely adopted by Chinn and Kramer (1991), Rodgers (1989), and Walker and Avant (2011) as part of nursing education and research (Hupcey, Morse, Lenz, & Tasón, 1996). However, Rodgers especially criticized other scholars for failing to recognize that concepts are dynamic, flexible, and changeable, presenting her method as an evolutionary approach to concept analysis. She suggested that concepts are context dependent so that they change over time in reference to their social and cultural contexts. Rodgers differentiated her method from other Wilsonians in three ways: systematic sample selection using multiple data sources, qualitative approach to data analysis, and identification of related terms of the concept being analyzed (Hupcey et al., 1996). Using Rodgers's approach, the specific procedure of this study is as follows:

1. Identify and name the concept of interest,
2. Identify surrogate terms and relevant uses of the concept,
3. Identify and select an appropriate realm (sample) for data collection,
4. Identify the elements of the concept, and
5. Identify concepts that are related to the concept of interest.

More detailed information of each step is provided under the following search parameters section. Additionally, in the current concept analysis, a tree diagram was used to classify the elements of the concept for the fourth step, and a more cohesive and comprehensive definition of digital citizenship was produced after the concept analysis was completed.

Given that a concept plays a significant role in understanding its meaning in a certain discipline, if the elements or features of concepts are not clearly identified, it is difficult to build knowledge. Therefore, a concept analysis regarding digital citizenship can be considered as an important methodology for developing the constructs leading to better citizenship education. Since the main goal of this study was to examine how the concept of digital citizenship is

constructed and how elements/categories of digital citizenship have changed, Rodgers's (1989) evolutionary approach to concept analysis was deemed the most appropriate for this study.

Search Parameters

Addressing the digital citizenship related terms. Although the concept of digital citizenship was the primary term of analysis, several other terms regarding citizenship in connection with the Internet were also used. Based on citizenship studies (L. Bennett & Fessenden, 2006; Coleman, 2006; Longford, 2005), I found six digital citizenship related terms: *online citizenship, cyber citizenship, e-citizenship, networked citizenship, technological citizenship, and Internet citizenship*.

Searching the data. An online search of multiple databases (EBSCO, ERIC, and Google Scholar) was conducted using keywords listed above until the available data sources were depleted. The study used seven search terms (digital citizenship along with the six terms identified above) in conjunction with *Internet* and *citizenship*. I found 254 data sources in the first search, and detailed analytical notes were recorded.

Establishing the criteria for inclusion and exclusion. English-language journal articles and/or book chapters published in the fields of education, political science, and communication/journalism were selected because digital citizenship studies have been actively pursued in these fields. To gain multiple data sources, official websites and blogs and news articles dealing with digital citizenship from 2003 to 2014 were also included. The year 2003 was used as a starting point for this study because some important incidents that affect the way in which Internet-related social interactions and communication occurred around that time: Facebook was launched in 2004; Twitter was initiated in 2006; 4chan, regarded as Internet subculture for anonymous groups posting and discussing manga and animations was launched in 2003; and Reddit, a major platform for sharing and discussing social news with the slogan of "The front page of the Internet" was started in 2005.

Book reviews, along with literature lacking a definition of digital citizenship, were excluded for this study. However, literature that illustrated a new meaning of citizenship as a result of the advent of the Internet and digital technologies was included, even though the term digital citizenship not directly used in the text. As a result, 30 articles, six white papers, four book chapters, and 17 blogs/websites were qualitatively analyzed.

Coding and analyzing data. I used five categories for coding the data set: (1) author, (2) publication year, (3) title, (4) data sources (journal article,

book chapter, white paper, news article, blog, and website), and (5) texts indicating meanings of digital citizenship (see coding example in Table 1). I carefully read through all collected documents at least three times, using an iterative process to abstract out main elements of explicit as well as implicit definitions and/or explanations of digital citizenship from the text. A tree diagram was created to group the elements into relevant themes. An expert in Internet-infused education examined these emerging sub-themes for inter-rater reliability. Disagreements resulted in elements that were re-examined and reclassified. After agreement was achieved, relevant sub-themes were combined into a general category. Two experts in citizenship education were then asked to verify if each category was reasonable.

RESULTS

Four Categories of the Concept of Digital Citizenship

Retrieved texts from the established literature and online data defined, explained, and practiced the concept of digital citizenship in four ways: digital citizenship as *Ethics, Media and Information Literacy* (MIL), *Participation/Engagement* (P/E), and *Critical Resistance* (CR). These categories emerged through an iterative process as I continuously searched through the texts for common threads. Each category will be briefly defined and elaborated through its primary sub-themes.

Digital citizenship as ethics. Digital citizenship as *ethics* refers to how Internet users appropriately, safely, ethically, and responsibly engage in Internetworking activities (see examples in Table 2 and detailed elements in Appendix A). This perspective recognizes virtual communities (Rheingold, 1993) as new spaces where people live, interact, and communicate with each other on a regular basis. Many educators were relatively more interested in this category, highlighting the fact that responsible and safe behavior online should be a serious topic in education (e.g., I. R. Berson & Berson, 2003; CyberWise, 2014; International Society for Technology in Education [ISTE], 2007; Lenhart et al., 2011; Ribble, 2004; Ribble & Bailey, 2007; Winn, 2012). Three major sub-themes of this category were found: safe, responsible, and ethical use of technology and the Internet; digital awareness; and digital responsibilities and rights.

First, a representative sub-theme in the Digital Ethics category was "safe, responsible, and ethical use of technology and the Internet." According to definitions offered by Ribble (2004) and ISTE (2007), good digital citizens need to know norms and/or values regarding appropriate and effective use of technology and/or the Internet. Second, "digital awareness" was considered as an important sub-theme of the Digital Ethics category. Several studies have

Table 1. Coding Example

Authors	Year	Title	Data source	Main texts analyzed	Emerging themes
Afshar	2013	Digital citizenship	Blog post	• Educators have faced a challenge similar to businesses regarding the use of technology and the Internet; unfettered student access can bring major benefits by dramatically enhancing learning and creativity, but it comes at the risk of compromised privacy, copyright infringement, cyber bullying, plagiarism, and exposure to inappropriate content; the concept of digital citizenship was created to address this situation.	• Responsible behavior online
Becta	2010	Digital literacy	White paper	• Digital citizenship means being digitally literate and having the combination of skills, knowledge and understanding that young people need to learn before they can participate fully and safely in an increasingly digital world. • This array of skills, knowledge, and understanding is a key component of the primary and secondary curriculum and should be incorporated in the teaching of all subjects at all levels.	• Higher levels of critical thinking skills

				• Evidence has shown that while many young people feel confident about using technology, this does not always translate into competence; this is particularly apparent in relation to "higher level" critical thinking skills, e.g., awareness of commercial strategies or bias in the media.	
Bennett et al.	2009	Young citizens and civic learning	Journal article	• Actualizing citizen: (1) weak sense of duty to participate in government; (2) focuses on lifestyle politics—political consumerism, volunteering, social activism (more personally expressive or self-actualizing politics); (3) mistrust of media of media and politicians, less likely to follow politics in the news; (4) joins loose networks for social action, communicates through digital media.	• Lifestyle politics (micro-ways of political engagement)

Table 2. Excerpts From the Texts in Digital Citizenship as Ethics

Texts analyzed	Emerging theme	Coded terms
"The project starts with a data collection phase, during which exploratory, quantitative and qualitative studies are conducted to then produce evidence-based communication materials to raise awareness on the optimal and safe use of the Information and Communication Technologies (ICTs)." (Unicef, 2011)	Safe and ethical use of technology	Ethics (E)
"Students will require awareness that online behaviors can impact people within their immediate circle of friends but also outside of that circle. Additionally, student digital behaviors can impact their own personal social dynamics, personal resources, careers, and safety." (Hollandsworth et al., 2011, p. 38)	Digital awareness	
"A good digital citizen will experience the advantages of the digital world but like a citizen of a nation, they will be identifiable, speak using the appropriate language, serve his or her duty to judge what is appropriate within the laws of the land and ethical behavior, uphold their social responsibilities and be virtuous." (Educational Origami, 2014)	Digital responsibilities and rights	

focused on the idea that digital citizens need to be aware of political, social, cultural, economic, and educational issues that stem from the pervasive use of digital technologies in their everyday lives (I. R. Berson & Berson, 2003; Hollandsworth, Dowdy, & Donovan, 2011; Ohler, 2012; Ribble, 2004). I. R. Berson and Berson (2003) pointed out that this topic should be added into existing social studies curricula to educate students to become effective citizens in the 21st century. From a more critical perspective, Longford (2005) argued that digital citizens should understand how codes constructed and designed for Internet/web activities regulate and influence peoples' behaviors, activities, and lives online.

Third, "digital rights and responsibilities" have also been highlighted as a central part of ethical and responsible behaviors on the Internet (Coleman,

2006; Common Sense Media, 2009; Ohler, 2012; Ribble & Bailey, 2007). For example, it is pointed out that rights to free speech; protecting privacy; intellectual property; copyright protection; and respecting self, others, and community, including reporting cyberbullies and harms, are important issues that should be included in Internet-infused educational contexts. Similar to traditional approaches to citizenship, scholars see a digital citizen as a full member of an online community and believe digital citizens should protect their own and others' rights and obligations in ways that transcend geographical, cultural, and class boundaries.

Digital citizenship as MIL. Digital citizenship as MIL denotes ones' abilities to access, use, create, and evaluate information and to communicate with others online (see examples in Table 3 and detailed elements in Appendix B). The title of this category is drawn from the United Nations Educational, Scientific and Cultural Organization's (Moeller, Joseph, Lau, & Carbo, 2011) definition of MIL, which outlines critical skills and competencies of media and information as central to productive online activity. As opposed to traditional perspectives on literacy that are generally defined as print based, functional, cognitive, and decontexualized reading and writing skills (Alvermann, 2009;

Table 3. Excerpts From the Texts in Digital Citizenship as Media and Information Literacy

Texts analyzed	Emerging theme	Coded terms
"What does it mean to be a digital citizen? Participation in society online requires regular access to information technology and the effective use of technology." (Mossberger, 2009, p. 173)	Internet access	Media and Information Literacy (MIL)
"The authors contend that becoming a digital citizen is a process influenced by technological attitudes that may have the effect of widening the digital gap; in turn, racial and educational differences may have independent effects." (Shelley et al., 2004, p. 259)	Technical skills	
"New literacies are prerequisite for digital citizenship. New literacies increase the availability of relevant and credible information and broaden the capacity of individuals to get, share, compare, and contextualize information by developing new skills." (Simsek & Simsek, 2013, p. 133)	Psychological capabilities	

Venezky, 1995), MIL includes "abilities to recognize the need for information and knowing how to access, evaluate, synthesize, and communicate" (Moeller et al., 2011, p. 32). MIL also embraces the process of critical analysis of a wide variety of forms, such as print, audio, video, and multimedia (Hobbs & Jensen, 2009). In school-based contexts, critiquing mass media texts, such as movies and advertisements, is commonly used to promote media literacy. Sometimes MIL includes critique of the social power and politics that is embedded in digital media so that students can recognize the voices of those who produce the information along with awareness of those whose voices cannot be heard through the applications (Alvermann & Hagood, 2000; Buckingham, 2007; New Media Consortium, 2005). The data from this category show three primary sub-themes: digital access, technical skills as lower levels of MIL, and psychological capabilities as higher levels of MIL.

"Digital access," or the digital divide, is one of the main concerns of MIL (e.g., Moeller et al., 2011; Mossberger, 2009; Mossberger et al., 2008; Ribble, 2004, 2009; Ribble & Bailey, 2007). Some researchers argued that effective and efficient accessibility to the Internet is a fundamental component to full participation in online societies. There is a huge gap between people who have easy, reliable Internet access and those who have limited or no Internet access (Mossberger, 2009; Mossberger et al., 2008; Shelley, Shulman, Lang, Beisser, & Mutiti, 2004). Race, ethnicity, age, and educational levels are considered as significant predictors of Internet access (Shelley et al., 2004).

Simply having Internet access does not necessarily mean the individual is using the Internet effectively and successfully. MIL also includes "technical skills," which represent an instrumental perspective on literacies and competencies, such as how to use new digital technologies, computers, smart phones, and/or tablet PCs (e.g., d'Haenens, Koeman, & Saeys, 2007; Mossberger, 2009; Mossberger et al., 2008; Ohler, 2012; Shelley et al., 2004; Simsek & Simsek, 2013). These skills serve as prerequisites for advanced Internet activities.

A good deal of the literature on Internet-infused education and citizenship has considered many different "psychological capabilities as higher levels of MIL" (e.g., ISTE, 2007; Marcinek, 2013; Ohler, 2012; Ribble, 2004; Ribble & Bailey, 2007; Simsek & Simsek, 2013). Scholars emphasize such abilities as how to assess information, critically read and write online, and express themselves online beyond simple technical proficiencies (Hobbs & Jensen, 2009; Salpeter, 2008). Due to technological developments, such as multimedia, readable/writable web (e.g., wikis), and various other digital applications, 21st-century literacy is considered within a framework of multimodality activities that use sound, visual images, including video, and text for communication (Kress & van Leeuwen, 2001). From this perspective, researchers assert that students need to be equipped with specific abilities, skills, and competences, including cognitive-intellectual abilities to select, classify, analyze, interpret, and understand data critically (e.g., I. R. Berson & Berson, 2003; Hicks et al.,

2011; Salpeter, 2008; Simsek & Simsek, 2013); socio-communicative abilities to communicate/network with others, share photo/videos, or exchange ideas through blogs, podcasts, and/or online discussion forums (e.g., d'Haenens et al., 2007; Simsek & Simsek, 2013); and emotional abilities to learn how to control negative feelings or sympathize with others' emotions (e.g., Marcinek, 2013; Simsek & Simsek, 2013).

Digital citizenship as P/E. Digital citizenship as P/E introduces different types of online engagement, including political, socio-economic, and cultural participation (see examples in Table 4 and detailed elements in Appendix C). Two major sub-themes of this category were identified through the literature: political participation as a macro-form of engagement and personalized participation as a micro-form of engagement.

One dominant sub-theme in P/E is "political participation" as a macro-form of engagement, including economic participation. The political-oriented perspective regards the Internet as a new type of public sphere for discussion of and/or deliberation on political policy or as a tool to increase voting rates and voting participation. Using social network sites for elections and communicating between representatives and the public has become a general phenomenon of the burgeoning information age (Lee, 2009; Raoof, Zaman, Ahmad, & Al-Qaraghuli, 2013). Government-related participation, including e-voting and online petition for e-democracy, is regarded as an important type of engagement in digital citizenship (e.g., L. Bennett & Fessenden, 2006; Crowe, 2006; VanFossen, 2006).

"Personalized forms of participation" is a second important sub-theme in P/E. Some studies acknowledge that online activities do not have to be directly political in nature, with many younger users engaging in transactional Internet activities in more personal, interest-driven ways (W. L. Bennett et al., 2009; Kahne, Lee, & Feezell, 2013; Lenhart et al., 2011). For example, W. L. Bennett et al. (2009) challenged the idea of conventional civic learning practices in political activities, claiming it is imperative to also understand online civic life on the basis of games, popular culture, and self-expression, the types of participation capable of transcending dichotomies between "private and public, commercial and civic" (p. 117). In a similar vein, Earl and Schussman (2008) and Tatarchevskiy (2011) suggested youth culture and popular culture, including entertainment-related petitioning and Internet activism with regard to poverty, as a more personal form of online activism. Lenhart et al. (2011) also illustrated how gaming can be a form of civic engagement, focusing on the civic nature of many gaming experiences. These scholars regard the Internet as a cultural tool and emphasize the role(s) played by interest-driven online participation. Given that youths are more familiar with micro-forms of the civic engagement based on their immediate culture and everyday activities, these studies clearly

Table 4. Excerpts From the Texts in Digital Citizenship as Participation/Engagement

Texts analyzed	Emerging theme	Coded terms
"Citizenship means more than behaving responsibly, it also means that we should be civically engaged: voting, keeping current and having our voice in political matters, and contributing to society. To this end, we need to get accurate information, and decide the verity of political messages that surround us. This same pro-active attitude and behavior also applies to the digital environment. Technology enables us to research significant social issues and to voice our opinions to a global audience." (Farmer, 2011)	Political engagement	Participation/ Engagement (P/E)
"Digital commerce is often the most difficult element of digital citizenship for educators to address in the classroom. Teachers may believe it is not their responsibility to teach students to be informed, careful consumers (except in certain business courses). However, online purchasing has become an important factor in students' lives. Learning to become an intelligent consumer is an important aspect of good citizenship." (Ribble & Bailey, 2007, p. 16)	Economic engagement	
"Recent bright spots point to the increased use of narratives and gaming. This is no surprise. If engagement is about sustaining action and involvement beyond one-off events, then engagement will naturally take the form of stories or games. They provide meaningful structures for sustained actions." (Knight Foundation, 2012, p. 10)	Cultural engagement	
"Actualizing citizen: 1) Weak sense of duty to participate in government, 2) Focus on lifestyle politics: political consumerism, volunteering, social activism (more personally expressive or self-actualizing politics), 3) Mistrust of media of media and politicians—less likely to follow politics in the news, 4) Joins loose networks for social action—communicates through digital media." (W. L. Bennett et al., 2009, p. 107)	Personalized engagement	

demonstrate that young adults are perhaps more likely to perform non-political and micro-ways of participation in the process of becoming online citizens.

Digital citizenship as CR. Digital citizenship as CR takes more progressive and radical viewpoints than P/E. However, the division between P/E and CR is not always clear cut, as both are related to active, goal-driven participation in virtual communities (see examples in Table 5 and detailed elements in Appendix D). P/E suggests legitimate participation options in existing systems or events online or one-click activism, such as signing online petitions or pushing a "like" button on Facebook. CR pursues more creative, innovative, non-linear, and non-hierarchal forms of participation, potentially leading to a deeper level of digital engagement. This category is reminiscent of Banks's (2008) conceptions of transformative citizens who take action to achieve social justice and challenge the status quo. Two major sub-themes were found: critique of the existing power structures and political activism.

"Critique of the existing power structure" is regarded as a first step for CR. Longford (2005) claimed true digital citizenship in the Internet age should entail the "capacity to resist and reshape-to *hack*" (p. 2), highlighting the hacker's values of "decentralization, openness, transparency, consensus, flexibility, universal accessibility, anti-commercialism, and anti-authoritarianism" (p. 5). For instance, hacktivists (a portmanteau of hack and activists) sometimes develop open-source approaches to goal-oriented online

Table 5. Excerpts From the Texts in Digital Citizenship as Critical Resistance

Texts analyzed	Emerging theme	Coded terms
"Digital citizenship should involves a broad conception of politics that embraces traditional questions of power, inequality, organisation and ideology, but does not exclude everyday political experience, such as the negotiation of feelings and sensitivities, the governance of spaces and relationships, the nature and political status of children, adults and youth, and the many intersections between popular culture and power." (Coleman, 2006, p. 261)	Recognition of power structure	Critical Resistance (CR)
"Egypt's wired revolutionary generation who challenge the status quo and want educational reform using social media." (Herrera, 2012, p. 340)	Resistance	

communities (e.g., Linux) in order to circumvent government and/or corporate control of the Internet experience (Glassman, 2013; Kahn & Kellner, 2004). Coleman (2006) also criticized current digital citizenship and citizenship education initiatives that simply reinforce students' exposure to controlled situations dominated by an authoritative voice and/or practice political simulations in highly managed virtual worlds. He asserted that digital citizenship should embrace "traditional questions of power, inequality, organization and ideology" (p. 261).

"Political activism," the second sub-theme of CR, can be associated with recent epoch-making incidents, such as the Arab Spring and Occupy Wall Street. Digital citizens use the Internet as a tool to challenge inequality and to transform society through grassroots movements and activist networks (DeLuca, Lawson, & Sun, 2012; Glassman, 2012b; Mansour, 2012). For instance, Herrera (2012) pointed out the potentials of a younger Egyptian generation actively engaging in politics, using social media to pursue deep democracy and challenge previously unchallengeable institutional power structures. Similar to the ways multicultural citizenship challenges White-male dominant perspectives by including marginalized voices into citizenship discourse, CR can help digital citizens recognize the unequal power relations, challenge the status quo, and re-claim democratic processes for marginalized citizens.

THE EVOLUTION OF DIGITAL CITIZENSHIP

As a response to the second research question, how the notion of digital citizenship has evolved over the past 10 years, this section will examine what sorts of changes, if any, that have occurred in each category. Since only a few distinctive changes have been identified, the results will be provided as a whole rather than using separate subsections.

Digital citizenship as Ethics has been an important topic in the extant literature between 2003 and 2014 (Appendix E). This category generally maintains legislative, regulative, top-down-oriented, legal, and protective perspectives of digital citizenship over time. Much attention was given to the role(s) of individual users between 2003 and 2011, while greater consideration was given to transactional community between 2012 and 2014. Scholars have recently shown a greater interest in such issues as developing better relationships with others, not harming others, and/or how to make a better world through collective efforts in cyberspace (e.g., Davis, 2013; Ohler, 2012). The concept of digital citizenship has started to integrate related such issues as mutual respect, preventing cyber bullying, creating safe communities in an online world, and being aware of community and global responsibilities when using social network sites. For example, Ohler (2012) argued digital citizens should "balance the individual empowerment of digital

technology with a sense of personal, community, and global responsibility"
(p. 14). In sum, there is a common aspect of regulative abilities, but there
has been a move from individual-centered perspectives to social relation-
ships and community-oriented viewpoints in Digital Ethics. Some of this
may be in reaction to Internet-influenced socio-political events, such as the
Arab Spring, as well as emerging non-hierarchical discussion forums, such
as Reddit.

The second category, MIL, has been extensively studied over the last
10 years (Appendix F). The issue of digital access was periodically empha-
sized through 2011. There was an early focus on lower MIL skills and basic
hardware-centered skills, such as computer proficiency (Shelley et al., 2004),
while web-based skills, such as effective use of the Internet, were addressed
later (Mossberger, 2009). Psychological capabilities related to higher levels of
MIL were repeatedly studied between 2003 and 2014. Beyond functional liter-
acy skills such as how to read and write online (L. Bennett & Fessenden, 2006),
cognitive, communicative, and social skills have been discussed a number of
times, particularly after 2009.

There have been only a few changes in P/E discussions (Appendix G).
The term civic engagement is generally used. However, political engagement
is also often used, while economic, social, and cultural online participation has
rarely been discussed over the past 10 years. The most noticeable change to
P/E was that individualized ways of participation have been more frequently
identified since 2009. For example, young adults today are more interested in
"self-actualizing" styles of civic engagement, such as communicative, interac-
tive, and networked activities through using participatory media (W. L. Bennett
et al., 2009, p. 107).

Digtial citizenship as CR is directly connected to only three studies in
2005, 2006, and 2012. The discourse of CR tends to remain on the margins,
particularly between 2007 and 2011 (Appendix H). As it is difficult to chal-
lenge common-sense ideas and the status quo and/or to confront authority
(Kumashiro, 2004), it is likely that activities of hackers or other anonymous
groups are considered threatening on- and offline. However, after Occupy
Wall Street and the Arab Spring, more attention has been given to grassroots
movements using social network sites to achieve goals (DeLuca et al., 2012).

DISCUSSION

A Multidimensional and Complex Concept of Digital Citizenship

According to the results of the concept analysis, four categories of digital
citizenship were identified as being central to the concept of digital citi-
zenship: Digital Ethics refers to responsible behavior on the Internet; MIL
concerns Internet access, technological skills, and psychological capabilities
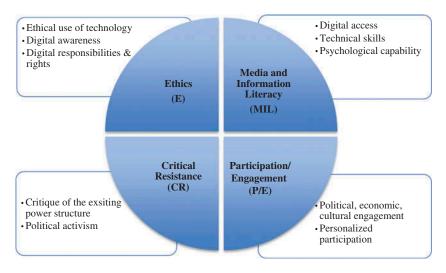
Figure 1. Four Categories of Digital Citizenship

for using the Internet to successfully communicate with others online; P/E signifies political, economic, cultural participation in existing social structures; and CR denotes more critical participation challenging the status quo and promoting social justice via the Internet (Figure 1). Although the four categories are comprised of their own characteristics, they are not always distinctive when compared with other categories because digital citizenship is rarely considered along a single dimension. Moreover, there have been few truly substantive and distinguishing changes in these categories over the last decade. Possible reasons could be that the pervasive use of the Internet and its application in formal educational settings is relatively new, and deeper studies concerning the relationship between the Internet, citizenship, and education are rare.

Based on the results, this study partially responds to each of the four questions posited at the beginning of this article. First, citizenship in the Internet era can be referred to as digital citizenship, including *abilities, thinking, and action regarding Internet use, which allows people to understand, navigate, engage in, and transform self, community, society, and the world*. This definition implies its multifaceted, interrelated, critical, and global characteristics in line with Knight Abowitz and Harnish's (2006) critical citizenship and Banks's (2008) transformative citizenship. Being a good digital citizen is not just participating in pre-existing communities but also creating new and different types of communities and/or sometimes transforming the community, society, and world when social injustice happens online and offline.

Second, digital citizenship needs to be understood as a multidimensional phenomenon more attuned to the burgeoning uses of digital technology

in everyday activities. The established studies on digital technologies, the Internet, and citizenship tend to examine digital citizenship as a unidimensional concept. For example, from an educational perspective, some argued that when students learn online etiquette and communication skills, they become good digital citizens (e.g., Hicks et al., 2011; Ribble & Bailey, 2007; Winn, 2012), and from a political perspective, some claim digital citizenship is promoted when students participate in political events (e.g., Citron & Norton, 2011; Coleman, 2006). However, without knowing social and political issues along with abilities to effectively use digital technologies, it would be difficult to actively engage in online civic activities. Consequently, digital citizenship should be conceptualized as being a multilayered concept that might lead students toward inclusive and comprehensive perspectives of citizenship.

Third, digital citizenship is different but not separate from the previous notions of citizenship that rely on offline civic lives. Cyberspace is no longer a new and mysterious space. Rather, it is where we think, feel, behave, and experience on a daily basis in connection with mixed offline and online participation. Therefore, online activities are not limited to use of the Internet but are also closely related to place-based communities (Castells, 2001; Glassman & Burbidge, 2014). Put another way, the previous conceptions of citizenship are significant milestones in examining the notion of digital citizenship, and they remain still useful and applicable in development and understanding of digital citizenship in the information age.

Finally, digital citizenship has been constructed in the seamless web of three shared elements of citizenship: social responsibility (e.g., M. J. Berson & Berson, 2004; Dagger, 2002; Osler & Starkey, 2003), being well-informed on issues (e.g., Merryfield, Augustine et al., 2012; Salpeter, 2008), and active engagement (e.g., Banks, 2008; Coleman, 2006), which are also key aspects of previous approaches to citizenship.

An understanding of digital citizenship based in the four categories represented in this study suggests it is beneficial to take various other approaches to citizenship into account while still recognizing the unique qualities the Internet is having on everyday civic life. These findings, however, are constrained by what data sources were collected and used for analysis. This study included academic journals, white papers, and official websites to investigate comprehensive elements of digital citizenship. If data had been collected from only empirical academic journal articles, it might be more convenient to conceptualize and/or operationalize the concept of digital citizenship as providing more distinctive and clearer empirical indicators of digital citizenship. Given that most civic engagement has been performed in active political blogs and/or Internet community (e.g., Reddit, Voat, 4Chan), it might be worthwhile to include Internet activities performed in these types of online communities to thoroughly and concretely understand how actual political activism occurs on the Internet.

Interrelated, but Nonlinear, Relationship Among Traditional, Critical, and Digital Citizenship

This study sought to understand the concept of digital citizenship in association with other existing conceptions of citizenship. I argue that there are three shared aspects to the different perspectives on each type of citizenship: social responsibility, being well-informed on issues, and active and engaged citizenry (Table 6).

Digital citizens' responsibility is reminiscent of the traditional viewpoint of citizenship, which also centers on rights and responsibilities for people living in a nation-state. Concepts of traditional citizenship are often, by their very nature, bounded by the physical place where individuals are born and/or spend a good part of their lives (Rogers, 2002). That is, citizenship generally acts as a centripetal force pulling individuals back toward the needs and responsibilities of pre-existing communities, such as nation-states. The

Table 6. Three Shared Aspects of the Different Perspective on Citizenship

	Traditional citizenship	Critical citizenship	Digital citizenship
Social responsibility	Maintaining centripetal forces that hold community together and the role the individual plays with in it	Recognizing community that can easily be oppressed by centripetal forces established through dominant groups	Supporting centrifugal information and social interactions that are respectful of other members of the specific community
Being well informed on issues	Using traditional information sources to keep abreast of current political, social, and economic issues	Understanding information that is often controlled for specific purposes	Searching for new information that supports or critiques current political, social, and economic issues
Active and engaged citizenry	Engaging in predetermined activities that the social system uses to define citizens (e.g., voting)	Critiquing predetermined social construction to develop diverse communities	Creating systems and relationships that hold community together in a dynamic information environment

emphasis is on the sustainability and stability of the community or larger society and on the role(s) its members are expected to play in its ongoing and productive activities. Similarly, digital citizenship reflects the needs and responsibilities of individuals. However, it is more concerned with the way these needs and responsibilities play out in the maelstrom of centrifugal information sources and social interaction environments offered in Internet-based activities (Glassman, 2013).

The ideas of being well informed on issues have been a highlight of traditional, critical, and digital citizenship. Traditionally, literacy is pointed to as a primary ability allowing citizens to keep abreast of current political, social, and cultural issues. In critical citizenship, literacy is used to challenge the status quo and predetermined activities of traditional citizenship (Freire, 1970). Digital citizens need to be equipped with basic skills regarding the use of the Internet, including searching for new information that supports or critiques current political, social, economic, and cultural issues. It is more imperative that the ability to participate in building knowledge aids in both the critique and development of important information sources.

Active engagement is a key element in the concept of citizenship. It is represented in republican conceptions of citizenship engaging in pre-determined activities (e.g., voting) that the social system uses to define citizens. Critical citizenship understands active engagement as infusing marginalized voices into societies and political actions for social justice and/or human rights. Active engagement in digital citizenship is linked with developing and sustaining the diverse online communities to which people belong, which includes more critical types of engagement, derived from such organically developed Internet phenomena as open-source communities (e.g., Linux) and hacktivist groups (e.g., Anonymous) (Glassman, 2013; Longford, 2005; Olson, 2012).

As seen in comparison between traditional, critical, and digital citizenship, online civic activities should not be interpreted strictly as an Internet phenomenon. I believe that the concept of digital citizenship has important, sometimes non-linear and sometimes indirect, interrelationships with offline (place-based) civic lives. As many online activities affect offline activities and vice versa, digital citizenship is not limited solely to online behavior. Even if some activities can be regarded as purely online (e.g., tweeting and gaming), they eventually have some influence on offline communications, behaviors, or economic issues. For example, Anonymous, an online hactivist group, sought to destroy ISIS-linked online accounts and websites recruiting members of ISIS after the Paris attacks. As seen in this case, the online activity of Anonymous is interconnected with an offline political and social incident. Therefore, three different forms of citizenship are all together in the web of citizens' responsibility, knowledge, and engagement, where individuals traverse sometimes apparent and sometimes transparent boundaries between (cyber) space and place (see Glassman & Burbidge [2014] for a robust discussion of this relationship). The idea of digital citizenship as an extension of traditional and/or

critical approaches to citizenship would be beneficial to gaining a deeper understanding of evolving online human activities, civic engagement, and citizenship.

EDUCATIONAL IMPLICATIONS

This conceptual analysis of digital citizenship has important implications for education in three ways. First, the four reported categories of digital citizenship expand and build upon knowledge regarding citizenship. To understand the concept of digital citizenship per se, this study examined disciplines beyond education, in particular, political science and journalism/communication. Since citizenship is a contested and complex concept, there would be limitations to a deep understanding of what citizenship means if its investigation was conducted within a restricted field of inquiry. Therefore, this study helps to provide rich and detailed information on how the concept of digital citizenship can be understood across fields of inquiry as well as within the field of education.

Second, this study methodologically could provide a newer way to conduct educational research. Although content analysis of curricular and textbooks has been commonly used in the field of education, concept analysis is relatively new. Conradi, Jang, and McKenna (2014) used a concept analysis in education, especially educational psychology. However, they modified the procedures to some extent to fit it into their study, and the way they displayed their findings was very similar to meta-analyses using numbers and graphs. This study attempted to trace the original steps of Rodgers's (1989) evolutionary approach. In particular, the introduction of concept analysis into social studies research also can be useful because there exists a variety of concepts that should be taught in social studies education. If teachers have a better and deeper understanding of concepts, they might be able to more effectively and efficiently teach them.

Finally, this study can support ideas of social studies teaching and teacher education. Considering the importance of curriculum in teaching, it would be difficult to find effective outcomes without curriculum change (Barnett, Parry, & Coate, 2001). ISTE (2007) already regards digital citizenship as one of the standards for students and teachers. The concept of digital citizenship also needs to be added into social studies curricula to promote active digital citizens. Despite the fact that there is no direct topic regarding digital citizenship in social studies curricula, it should be possible to incorporate digital citizenship issues into relevant themes, such as "Science, Technology, and Society," and "Civic Ideals and Practices" (National Council for the Social Studies, 2010).

This study can support practical suggestions to promote students as informed and engaged digital citizens. Multilayered and multifaceted categories of digital citizenship could concretely provide specific ideas of responsible, active, and engaged digital citizens. For example, as described in Digital

Ethics, students should be taught to take responsibility but more in terms of being a productive member of a shared, project-based online community, avoiding activities that might negatively impact both traditional and online communities (such as piracy). Digital citizenship as MIL can also help teachers understand that being informed citizens is not to put something in a search bar and/or just go to the Wikipedia to find information. Rather, teachers can provide more advanced and higher levels of skills and knowledge regarding how to express ideas and opinions online, evaluate information, and create online content (e.g., Glassman, Bartholomew, & Hur, 2013). Digital citizenship as P/E suggests that teachers should reach outside of the classroom, but perhaps more importantly, students should reach beyond immediate curricula to understand possibilities of advocacy and/or extended education (local, societal, and/or global). For instance, some teachers have had students try to create trending hashtags on Twitter for organizations they believe do important work or become participants on active discussion boards. Digital citizenship as CR is perhaps the most difficult because it involves using the Internet to challenge dominant social themes. It involves facilitating Internet communities becoming autonomous working groups that are capable of not only building information sources but also using online social interactions to critique and challenge. For example, asynchronous online discussions (e.g., community blog) offer opportunities for individuals to provide challenges to accepted narratives by providing links to other knowledge sources (see Glassman & Burbidge, 2014, for an extended example in which a Ugandan student was able to challenge an accepted narrative about child soldiers).

CONCLUSION

It is significant to understand how digital citizenship can be defined and how it is changing along with deeper penetration of digital technologies into everyday activities for better citizenship education in the burgeoning Internet age. Digital citizenship should also be examined in conjunction with existing conceptions of citizenship because it is not a single dimension and/or a suddenly abrupt change in what citizenship means. Thus, this study collected data from different disciplines and interpreted the results in the relationship with other forms of citizenship to understand the meaning of digital citizenship in a broader context, generating four main categories that can be used for better citizenship education in social studies education. The investigation of key categories of digital citizenship must meet the needs of the times when identity; daily activities; and the core of political, economic, social, and cultural lives are being constructed by and around Internet activities. Furthermore, this conceptual analysis has meaningful implications for social studies education by providing awareness of the importance of digital citizenship as a primary goal of education. This study could support a big picture of what democratic digital

citizenship might look like and in what ways teachers educate their students to become responsible, well-informed, and actively engaged digital citizens at the local, national, and global levels. In addition, the four categories of digital citizenship found in this study could be used as a conceptual framework for further research when developing an instrument measuring individuals' abilities, thinking, and behaviors in an Internet-based community and/or providing primary elements of teaching citizenship in curriculum development.

REFERENCES

Abu El-Haj, T. R. (2007). "I was born here, but my home, it's not here": Educating for democratic citizenship in an era of transnational migration and global conflict. *Harvard Educational Review*, *77*, 285–316. doi:10.17763/haer.77.3.412l7m737q114h5m

Afshar, V. (2013, February 11). Digital citizenship: Businesses can learn from K–12 educators. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/vala-afshar/digital-citizenship-busin_b_2654628.html

Agbaria, A. (2011). The social studies education discourse community on globalization: Exploring the agenda of preparing citizens for the global age. *Journal of Studies in International Education*, *15*, 57–74. doi:10.1177/1028315309334645

Alvermann, D. E. (2009). Sociocultural constructions of adolescence and young people's literacies. In L. Christenbury, R. Bomer, & P. Smagorinsky (Eds.), *Handbook of adolescent literacy research* (pp. 14–28). New York, NY: Guilford Press.

Alvermann, D. E., & Hagood, M. C. (2000). Critical media literacy: Research, theory and practice in "new times." *The Journal of Educational Research*, *93*, 193–205. doi:10.1080/00220670009598707

Andrzejewski, J., & Alessio, J. (1999). Education for global citizenship and social responsibility. *Progressive Perspectives*, *1*(2), 2–17.

Banaji, S., & Buckingham, D. (2013). *The civic web: Young people, the Internet, and civic participation*. Cambridge, MA: MIT Press.

Banks, J. A. (2008). Diversity, group identity, and citizenship education in a global age. *Educational Researcher*, *37*, 129–139. doi:10.3102/0013189X08317501

Barnett, R., Parry, G., & Coate, K. (2001). Conceptualising curriculum change. *Teaching in Higher Education*, *6*, 435–449. doi:10.1080/13562510120078009

Becta (2010). Digital literacy: Teaching critical thinking for our digital world. *History.org*. Retrieved from http://www.history.org.uk/file_download.php?ts=1294321749&id=7314

Benhabib, S. (2004). *The rights of others: Aliens, residents and citizens*. New York, NY: Cambridge University Press.

Bennett, L., & Fessenden, J. (2006). Citizenship through online communication. *Social Education*, *70*, 144–146.

Bennett, W. L., Wells, C., & Freelon, D. (2011). Communicating civic engagement: Contrasting models of citizenship in the youth web sphere. *Journal of Communication*, *61*, 835–856. doi:10.1111/j.1460-2466.2011.01588.x

Bennett, W. L., Wells, C., & Rank, A. (2009). Young citizens and civic learning: Two paradigms of citizenship in the digital age. *Citizenship Studies*, *13*, 105–120. doi:10.1080/13621020902731116

Berman-Dry, A. (2013). Making it personal: A new approach to teaching digital citizenship. *Learning & Leading with Technology*, *41*(1), 24–26.

Berson, I. R., & Berson, M. J. (2003). Digital literacy for effective citizenship. *Social Education*, *67*, 164–167.

Berson, M. J., & Berson, I. R. (2004). Developing thoughtful "cybercitizens". *Social Studies and the Young Learner*, *16*(4), 5–8.

Blevins, B., LeCompte, K., & Wells, S. (2013). Citizenship education goes digital. *The Journal of Social Studies Research*, *38*, 33–44. doi:10.1016/j.jssr.2013.12.003

Brayboy, B. (2005). Transformational resistance and social justice: American Indians in Ivy League universities. *Anthropology and Education Quarterly*, *36*, 193–211. doi:10.1525/aeq.2005.36.3.193

Buckingham, D. (2007). Digital media literacies: Rethinking media education in the age of the Internet. *Research in Comparative and International Education*, *2*, 43–55. doi:10.2304/rcie

Castells, M. (2001). *The Internet galaxy: Reflections on the Internet, business, and society*. New York, NY: Oxford University Press.

Castles, S., & Davidson, A. (2000). *Citizenship and migration: Globalization and the politics of belonging*. New York, NY: Routledge.

Chinn, P. L., & Kramer, M. K. (1991). *Theory and nursing: A systematic approach*. St. Louis, MO: Mosby Year Book.

Citron, D., & Norton, H. (2011). Intermediaries and hate speech: Fostering digital citizenship for our information age. *Boston University Law Review*, *91*, 1435–1484.

Coleman, S. (2006). Digital voices and analogue citizenship Bridging the gap between young people and the democratic process. *Public Policy Research*, *13*, 257–261. doi:10.1111/newe.2006.13.issue-4

Common Sense Media. (2009). *Digital literacy and citizenship in the 21st century*. Retrieved from http://www.itu.int/council/groups/wg-cop/second-meeting-june-2010/CommonSenseDigitalLiteracy-CitizenshipWhitePaper.pdf

Conradi, K., Jang, B. G., & McKenna, M. C. (2014). Motivation terminology in reading research: A conceptual review. *Educational Psychology Review*, *26*, 127–164. doi:10.1007/s10648-013-9245-z

Couros, A. (2014). *Open thinking wiki: digital citizenship*. Retrieved from http://couros.wikispaces.com/digitalcitizenship

Crowe, A. R. (2006). Technology, citizenship, and the social studies classroom: Education for democracy in a technological age. *International Journal of Social Education*, *21*(1), 111–121.

CyberWise. (2014). *Top ten digital citizenship resources*. Retrieved from http://www.cyberwise.org/Digital-Citizenship-Top-Ten.html

Dagger, R. (2002). Republican citizenship. In E. Isin & S. Turner (Eds.), *Handbook of citizenship studies* (pp. 145–158). Thousand Oaks, CA: Sage.

Davis, M. (2013, October 16). Digital citizenship week 6: Resources for educator. *Edutopia*. Retrieved from http://www.edutopia.org/blog/digital-citizenship-resources-matt-davis

Dede, C. (2009). *Determining, developing, and assessing the capabilities of "future-ready" students* (Friday Institute White Paper Series Number 2). Boston, MA: Harvard University.

DeLuca, K. M., Lawson, S., & Sun, Y. (2012). Occupy Wall Street on the public screens of social media: The many framings of the birth of a protest movement. *Communication, Culture & Critique*, *5*, 483–509. doi:10.1111/j.1753-9137.2012.01141.x

Dewey, J. (1916). *Democracy and education*. New York, NY: Macmillan.

d'Haenens, L., Koeman, J., & Saeys, F. (2007). Digital citizenship among ethnic minority youths in the Netherlands and Flanders. *New Media & Society*, *9*, 278–299. doi:10.1177/1461444807075013

DigitalLiteracy.gov. (2014). *Back to school: Digital citizenship*. Retrieved from http://www.digitalliteracy.gov/back-to-school

DiMaggio, P., Hargittai, E., Neuman, W. R., & Robinson, J. P. (2001). Social implications of the Internet. *Annual Review of Sociology*, *27*, 307–336. doi:10.1146/annurev.soc.27.1.307

Dower, N. (2003). *An introduction to global citizenship*. Edinburgh, UK: Edinburgh University Press.

Dutton, W. H. (2005). The Internet and social transformation: Reconfiguring access. In W. H. Dutton, B. Kahin, R. O'Callaghan, & A. W. Wyckoff (Eds.), *Transforming enterprise: The economic and social implications of information technology* (pp. 375–397). Boston, MA: MIT Press.

Earl, J., & Schussman, A. (2008). Contesting cultural control: Youth culture and online petitioning. In W. L. Bennett (Ed.), *Civic life online: Learning how digital media can engage youth* (pp. 71–95). London, UK: The MIT Press.

Educational Origami. (2014). *The digital citizen*. Retrieved from http://edorigami.wikispaces.com/The+Digital+Citizen

Educational Technology and Mobile Learning. (2014). *Ed tech terminology and concepts teachers should know about*. Retrieved from http://www.educatorstechnology.com/2014/09/ed-tech-terminology-and-concepts.html

Fallace, T. (2009). John Dewey's influence on the origins of the social studies: An analysis of the historiography and new interpretation. *Review of Educational Research*, *79*, 601–624. doi:10.3102/0034654308326159

Farmer, L. (2011, February 1). Digital citizen. *Digital Citizen*. Retrieved from http://ecitizenship.csla.net

Felt, L. J., Vartabedian, V., Literat, I., & Mehta, R. (2012). Explore locally, excel digitally: A participatory learning after-school program for enriching citizenship on-and offline. *The Journal of Media Literacy Education*, *4*, 213–228.

Fischman, G. E., & Haas, E. (2012). Beyond idealized citizenship education: Embodied cognition, metaphors, and democracy. *Review of Research in Education*, *36*, 169–196. doi:10.3102/0091732X11420927

Flores, W. V., & Benmayor, R. (1997). *Latino cultural citizenship: Claiming identity, space, and rights*. Boston, MA: Beacon.

Franklin, C. A., & Molebash, P. E. (2007). Technology in the elementary social studies classroom: Teacher preparation does matter. *Theory & Research in Social Education*, *35*, 153–173. doi:10.1080/00933104.2007.10473331

Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Herder & Herder.

Fresnoza-Flot, A. (2009). Migration status and transnational mothering: The case of Filipino migrants in France. *Global Networks*, *9*, 252–270. doi:10.1111/j.1471-0374.2009.00253.x

Georgia Virtual Learning. (2013). *Connecting with other digital citizens, technology and resources*. Retrieved from http://cms.gavirtualschool.org/Shared/Digital%20Citizenship/DigCitConnect/index.html

Glassman, M. (2012a). An era of webs: Technique, technology and the new cognitive (r) evolution. *New Ideas in Psychology*, *30*, 308–318. doi:10.1016/j.newideapsych.2012.05.002

Glassman, M. (2012b). Occupying the noosystem: The evolution of media platforms and webs of community protest. *Berkeley Planning Journal*, *25*, 198–209.

Glassman, M. (2013). Open source theory .01. *Theory & Psychology*, *23*, 675–692. doi:10.1177/0959354313495471

Glassman, M., Bartholomew, M., & Hur, E. H. (2013). The importance of the second loop in educational technology: An action science study of introducing blogging in a course curriculum. *Action Research*, *11*, 337–353. doi:10.1177/1476750313502555

Glassman, M., & Burbidge, J. (2014). The dialectical relationship between place and space in education: How the Internet is changing our perceptions of teaching and learning. *Educational Theory*, *64*, 15–32. doi:10.1111/edth.12048

Glassman, M., & Kang, M. J. (2012). Intelligence in the Internet age: The emergence and evolution of open source intelligence (OSINT). *Computers in Human Behavior*, *28*, 673–682. doi:10.1016/j.chb.2011.11.014

Goode, L. (2010). Cultural citizenship online: The Internet and digital culture. *Citizenship Studies*, *14*, 527–542. doi:10.1080/13621025.2010.506707

Hancock, M. (2011, October 4). Digital citizenship for today's teens. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/marsali-hancock/digital-citizenship-for-t_b_993454.html

Heick, T. (2013, May 2). The definition of digital citizenship. *TeachThought.com*. Retrieved from http://www.teachthought.com/technology/the-definition-of-digital-citzenship/

Hermes, J. (2006). Citizenship in the age of the Internet. *European Journal of Communication*, *21*, 295–309. doi:10.1177/0267323106066634

Herrera, L. (2012). Youth and citizenship in the digital age: A view from Egypt. *Harvard Educational Review*, *82*, 333–352. doi:10.17763/haer.82.3.88267r117u710300

Hicks, D., Lee, J., Berson, M., Bolick, C., & Diem, R. (2014). Guidelines for using technology to prepare social studies teachers. *Contemporary Issues in Technology and Teacher Education*, *14*, 433–450.

Hicks, D., van Hover, S., Washington, E. Y., & Lee, J. K. (2011). Internet literacies for active citizenship and democratic life. In W. B. Russell III (Ed.), *Contemporary social studies: An essential reader* (pp. 467–491). Charlotte, NC: Information Age.

Hobbs, R., & Jensen, A. (2009). The past, present, and future of media literacy education. *Journal of Media Literacy Education*, *1*, 1–11.

Hollandsworth, R., Dowdy, L., & Donovan, J. (2011). Digital citizenship in K–12: It takes a village. *TechTrends*, *55*(4), 37–47. doi:10.1007/s11528-011-0510-z

Hostetler, A. L. (2012). Democratic use of blogs and online discussion boards in social studies education. *Social Education*, *76*, 100–104.

Hupcey, J. E., Morse, J. M., Lenz, E. R., & Tasón, M. C. (1996). Wilsonian methods of concept analysis: A critique. *Research and Theory for Nursing Practice*, *10*, 185–210.

International Society for Technology in Education. (2007). *ISTE standards for teachers*. Retrieved from http://www.iste.org/docs/pdfs/20-14_ISTE_Standards-T_PDF.pdf

Kahn, R., & Kellner, D. (2004). New media and Internet activism: From the 'Battle of Seattle' to blogging. *New Media & Society*, *6*, 87–95. doi:10.1177/1461444804039908

Kahne, J., Lee, N. J., & Feezell, J. T. (2013). The civic and political significance of online participatory cultures among youth transitioning to adulthood. *Journal of Information Technology & Politics*, *10*, 1–20. doi:10.1080/19331681.2012.701109

Kim, E. (2000). Korean adoptee auto-ethnography: Refashioning self, family and finding community. *Visual Anthropology Review*, *16*, 43–70. doi:10.1525/var.2000.16.1.43

Knight Abowitz, K. K., & Harnish, J. (2006). Contemporary discourses of citizenship. *Review of Educational Research*, *76*, 653–690. doi:10.3102/00346543076004653

Knight Foundation. (2012). *Digital citizenship: Exploring the field of tech for engagement*. Retrieved from http://www.knightfoundation.org/media/uploads/media_pdfs/Digital-Citizenship-tech4engage-summit-report.pdf

Kress, G., & van Leeuwen, T. V. (2001). *Multimodal discourse: The modes and media of contemporary communication*. New York, NY: Oxford University Press.

Kumashiro, K. K. (2004). *Against common sense: Teaching and learning toward social justice*. New York, NY: Routledge Falmer.

Kurubacak, G. (2007). Transformative power of digital citizenship: Critical perspectives on culture, new media and pedagogy. *Journal of Educational Technology*, *4*(4), 12–22.

Lee, Y.-O. (2009). Internet election 2.0? Culture, institutions, and technology in the Korean presidential elections of 2002 and 2007. *Journal of Information Technology & Politics*, *6*, 312–325. doi:10.1080/19331680903050085

Lenhart, A., Madden, M., Smith, A., Purcell, K., Zickuhr, K., & Rainie, L. (2011). Teens, kindness and cruelty on social network sites: How American teens navigate the new world of "digital citizenship". *Pew Internet & American Life Project*. Retrieved from http://www.pewinternet.org/2011/11/09/teens-kindness-and-cruelty-on-social-network-sites/

Longford, G. (2005). Pedagogies of digital citizenship and the politics of code. *Techné: Research in Philosophy and Technology*, *9*, 1–17.

Longstreet, W. S. (1985). Citizenship: The phantom core of social studies curriculum. *Theory & Research in Social Education*, *13*, 21–29. doi:10.1080/00933104.1985.10505497

Makinen, M. (2006). Digital empowerment as a process for enhancing citizens' participation. *E-learning*, *3*, 381–395. doi:10.2304/elea.2006.3.3.381

Mansour, E. (2012). The role of social networking sites (SNSs) in the January 25th Revolution in Egypt. *Library Review*, *61*, 128–159. doi:10.1108/00242531211220753

Marcinek, A. (2013). The path to digital citizenship. *Edutopia*. Retrieved from http://www.edutopia.org/blog/the-path-to-digital-citizenship-andrew-marcinek

Maria, S. (2005). The intimate and the imperial: South Asian Muslim immigrant youth. In S. Maira & E. Soep (Eds.), *Youthscapes: The popular, the national, the global* (pp. 3–22). Philadelphia: University of Pennsylvania Press.

Marshall, T. H. (1964). *Class, citizenship, and social development: Essays of T. H. Marshall*. Westport, CT: Greenwood.

Merryfield, M., Augustine, T., Choi, M., Harshman, J., & McClimans, M. (2012). *Teacher thinking on developing informed and engaged students for a globally connected world*. The Hague, The Netherlands: International Baccalaureate.

Merryfield, M. M., Badang, G., Bragg, C., Kvasov, A., Taylor, N., Waliaula, A., & Yamaguchi, M. (2012). Web resources for teaching about human rights. *Social Education*, *76*, 266–268.

Microsoft. (2014). *What does digital citizenship mean to you?* Retrieved from http://www.microsoft.com/security/resources/digital-citizenship.aspx

Moeller, S., Joseph, A., Lau, J., & Carbo, T. (2011). *Towards media and information literacy indicators*. Paris, France: United Nations Educational, Scientific and Cultural Organization.

Mossberger, K. (2009). Toward digital citizenship: Addressing inequality in the information age. In A. Chadwick & P. Howard (Eds.), *Routledge handbook of Internet politics* (pp. 173–185). New York, NY: Routledge.

Mossberger, K., Tolbert, C. J., & McNeal, R. S. (2008). *Digital citizenship*. Cambridge, MA: MIT Press.

National Council for the Social Studies. (2010). *National curriculum standards for social studies: A framework for teaching, learning, and assessment*. Silver Spring, MD: Author.

Nebel, M., Jamison, B., & Bennett, L. (2009). Students as digital citizens on Web 2.0. *Social Studies and the Young Learner*, *21*(4), 5–7.

New Media Consortium. (2005). *A global imperative: The report of the 21st century literacy summit*. Retrieved from http://www.nmc.net/pdf/Global_Imperative.pdf

Nussbaum, M. C., & Cohen, J. (1996). *For love of country: Debating the limits of patriotism*. Boston, MA: Beacon Press.

Ohler, J. (2011). *Digital citizenship resources*. Retrieved from http://www.jasonohler.com/digitalCitizenship/index.cfm

Ohler, J. (2012). Digital citizenship means character education for the digital age. *Education Digest: Essential Readings Condensed for Quick Review*, *77*(8), 14–17.

Olson, P. (2012). *We are Anonymous: Inside the hacker world of Lulzsec, Anonymous, and the global cyber insurgency*. New York, NY: Back Bay Books.

Ong, A. (1996). Cultural citizenship as subject-making: Immigrants negotiate racial and cultural boundaries in the United States. *Current Anthropology*, *37*, 737–762. doi:10.1086/204560

Orth, D., & Chen, E. (2013). The strategy for digital citizenship. *National Association of Independent Schools*. Retrieved from http://www.nais.org/Magazines-Newsletters/ISMagazine/Pages/The-Strategy-for-Digital-Citizenship.aspx

Osler, A., & Starkey, H. (2003). Learning for cosmopolitan citizenship: Theoretical debates and young people's experiences. *Educational Review*, *55*, 243–254. doi:10.1080/0013191032000118901

Pajnik, M. (2005). Citizenship and mediated society. *Citizenship Studies*, *9*, 349–367. doi:10.1080/13621020500211321

Palfrey, J., & Gasser, U. (2013). *Born digital: Understanding the first genera-tion of digital natives*. Philadelphia, PA: Basic Books.

Pike, G. (2000). Global education and national identity: In pursuit of meaning. *Theory Into Practice*, *39*, 64–73. doi:10.1207/s15430421tip3902_2

Raoof, J. K., Zaman, H. B., Ahmad, A., & Al-Qaraghuli, A. (2013). Using social network systems as a tool for political change. *International Journal of Physical Sciences*, *8*, 1143–1148.

Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier*. Cambridge, MA: MIT Press.

Ribble, M. (2004). Digital citizenship: Addressing appropriate technology behavior. *Learning & Leading with Technology*, *32*(1), 6–11.

Ribble, M. (2009). Passport to digital citizenship: Journey toward appropriate technology use at school and at home. *Learning & Leading with Technology*, *36*(4), 14–17.

Ribble, M., & Bailey, G. (2007). *Digital citizenship in schools*. Washington, DC: International Society for Technology in Education.

Richards, R. (2010). Digital citizenship and Web 2.0 tools. *Journal of Online Learning and Teaching*, *6*, 516–522.

Robb, M., & Shellenbarger, T. (2013). Promoting digital citizenship and academic integrity in technology classroom. *The Teaching Professor*, *27*(8), 10–13.

Rodgers, B. L. (1989). Concepts, analysis, and the development of nurs-ing knowledge: The evolutionary cycle. *Journal of Advanced Nursing*, *14*, 330–335. doi:10.1111/j.1365-2648.1989.tb03420.x

Rogers, S. (2002). Modern citizenship. In E. Isin & S. Turner (Eds.), *Handbook of citizenship studies* (pp. 117–128). Thousand Oaks, CA: Sage.

Rosaldo, R. (1997). Cultural citizenship, inequality, and multiculturalism. In W. V. Flores & R. Benmayor (Eds.), *Latino cultural citizenship: Claiming identity, space, and rights* (pp. 27–38). Boston, MA: Beacon.

Salpeter, J. (2008). Make students info literate. *Technology & Learning*, *28*(10), 24–27.

Schuck, P. (2002). Liberal citizenship. In E. Isin & S. Turner (Eds.), *Handbook of citizenship studies* (pp. 131–144). Thousand Oaks, CA: Sage.

Shelley, M., Shulman, S., Lang, E., Beisser, S., & Mutiti, J. (2004). Digital cit-izenship: Parameters of the digital divide. *Social Science Computer Review*, *22*, 256–269. doi:10.1177/0894439303262580

Simsek, E., & Simsek, A. (2013). New literacies for digital citizenship. *Contemporary Educational Technology*, *4*, 126–137.

Sone, M. I. (1979). *Nisei daughter*. Seattle: University of Washington Press.

Suarez-Orozco, C., Yoshikawa, H., Teranishi, R. T., & Suarez-Orozco, M. M. (2011). Growing up in the shadows: The developmental implica-tions of unauthorized status. *Harvard Educational Review*, *81*, 438–473. doi:10.17763/haer.81.3.g23x203763783m75

Subedi, B. (Ed.). (2010). *Critical global perspectives: Rethinking knowledge about global societies*. Charlotte, NC: Information Age Publishing.

Tapscott, D. (2008). *Grown up digital: How the net generation is changing your world*. New York, NY: McGraw Hill.

Tatarchevskiy, T. (2011). The 'popular' culture of Internet activism. *New Media & Society*, *13*, 297–313. doi:10.1177/1461444810372785

Unicef. (2011). *Digital citizenship and safety*. Retrieved from http://www.unicef.org/ceecis/resources_18475.html

VanFossen, P. J. (2006). The electronic republic? Evidence on the impact of the Internet on citizenship and civic engagement in the US. *International Journal of Social Education*, *21*(1), 18–43.

Venezky, R. L. (1995). Literacy. In T. L. Harris & R. E. Hodges (Eds.), *Literacy dictionary: The vocabulary of reading and writing* (p. 142). Newark, DE: International Reading Association.

Walker, L. O., & Avant, K. C. (2011). *Strategies for theory construction in nursing* (5th ed.). Upper Saddle River, NJ: Pearson.

Westheimer, J., & Kahne, J. (2004). What kind of citizen? The politics of educating for democracy. *American Educational Research Journal*, *41*, 237–269. doi:10.3102/00028312041002237

Wilson, J. (1963). *Thinking with concepts*. New York, NY: Cambridge University Press.

Winn, M. R. (2012). Promote digital citizenship through school-based social networking. *Learning & Leading with Technology*, *39*, 10–13.

ABOUT THE AUTHOR

MOONSUN CHOI is a Post-Doctoral Researcher in the Center on Education and Training for Employment at *The Ohio State University*, Columbus, OH 43210. She can be contacted at choi.811@osu.edu.

APPENDIX A

Elements of Digital Citizenship as Ethics

Sub-themes	Elements
Safe, responsible, and ethical use of technology	• Safe, legal and responsible use of information and technology (International Society for Technology in Education, 2007) • Optimal and safe use of information and communications technologies (ICTs; Unicef, 2011) • Appropriate norms associated with technology use, especially social media (Winn, 2012) • Safe, legal, responsible, and ethical use of digital information (Robb & Shellenbarger, 2013) • Safely and confidently use of technology (CyberWise, 2014)
Digital awareness	• Digital awareness (I. R. Berson & Berson, 2003) • Being aware of technology-related ethical, societal, and cultural issues (Ribble, 2004) • Critical awareness of how code constitutes the conditions of possibility for different norms, models (Longford, 2005) • Careful attentions to diverse online community (Kurubacak, 2007) • Personal, social, and environmental impacts of every technology and media application they use in school (Ohler, 2012) • Digital citizenship awareness (Hollandsworth et al., 2011)
Digital responsibilities	• Responsible behavior online (Berman-Dry, 2013; M. J. Berson & Berson, 2004; DigitalLiteracy.gov, 2014) • Digital etiquette (Ribble, 2004, 2009; Ribble & Bailey, 2007) • Appropriate behavior in social network sites (Lenhart et al., 2011) • Roles and responsibilities as a user of the Internet (Nebel et al., 2009) • Personal responsibility (Common Sense Media, 2009; Davis, 2013; ISTE, 2007; Microsoft, 2014; Ohler, 2012; Ribble, 2004, 2009; Ribble & Bailey, 2007; Richards, 2010) • Respecting the impact of one's actions beyond the self on the larger collective (Felt, Vartabedian, Literat, & Mehta, 2012) • Community and global responsibility (Ohler, 2012) • Responsibilities of self and others (Davis, 2013) • Addressing the situation with regard to cyber bullying, plagiarism, and exposure to inappropriate content (Afshar, 2013) • Respecting and protecting self and others (Educational Origami, 2014)

(Continued)

Appendix A (Continued)

Sub-themes	Elements
Digital rights	• Free expression (Coleman, 2006) • Digital law (Ribble & Bailey, 2007) • Digital rights (Microsoft, 2014; Ribble, 2004; Ribble & Bailey, 2007) • Respecting copyright and intellectual property (Educational Origami, 2014; Robb & Shellenbarger, 2013) • Addressing the situation with regard to privacy, copyright infringement (Afshar, 2013)

APPENDIX B

Elements of Digital Citizenship as Media and Information Literacy

Sub-themes	Elements
Digital access	• Access to information technology (Moeller et al., 2011; Mossberger, 2009; Mossberger et al., 2008; Ribble, 2004, 2009; Ribble & Bailey, 2007)
Technical skills as lower levels of MIL	• Computer proficiency (Shelley et al., 2004) • Technical competence/proficiency (Mossberger et al., 2008) • Effective use of the Internet (Mossberger, 2009; Mossberger et al., 2008; Ohler, 2011) • Educational competencies (Mossberger, 2009) • Use of web applications (Simsek & Simsek, 2013) • Technical skills and instrumental competence (Simsek & Simsek, 2013)
Psychological capabilities as higher levels of MIL	• Online reading and writing (L. Bennett & Fessenden, 2006) • Information literacy skills (Mossberger et al., 2008) • Information literacy, media literacy, or network literacy; the ability to access, evaluate, synthesize, and build upon information and media (Salpeter, 2008) • New media literacies skills (Felt et al., 2012; Hobbs & Jensen, 2009) • ICT literacy (Dede, 2009) • Digital literacy skills (Becta, 2010; I. R. Berson & Berson, 2003, M. J. Berson & Berson, 2004; Common Sense Media, 2009; Dede, 2009; Felt et al., 2012; Georgia Virtual Learning, 2013; Hicks et al., 2011; Microsoft, 2014; Mossberger, 2009; Ribble & Bailey, 2007)

Appendix B (Continued)

Sub-themes	Elements
	• Skills in acquiring and using information (Simsek & Simsek, 2013)
	• Digital communication (d'Haenens et al., 2007; Georgia Virtual Learning, 2013; ISTE, 2007; Ribble, 2004; Ribble & Bailey, 2007)
	• Culturally responsive, social justice-oriented, critical, and creative communication (Kurubacak, 2007)
	• Collaboration (Kurubacak, 2007)
	• Socio-communicative competence (Simsek & Simsek, 2013)
	• Communication skills (Simsek & Simsek, 2013)
	• Social learning skills (Felt et al., 2012)
	• Emotional competence (Simsek & Simsek, 2013)
	• Emotional learning skills (Felt et al., 2012)
	• Combining cognitive, affective, psycho-social, and technological skills (Dede, 2009)
	• Knowledge (Nebel et al., 2009; Simsek & Simsek, 2013), civic knowledge (Blevins et al., 2013)
	• Digital wellness (Marcinek, 2013; Ohler, 2012; Ribble & Bailey, 2007)

APPENDIX C

Elements of Digital Citizenship as Participation/Engagement

Sub-themes	Elements
Political engagement	• Political engagement/participation (Coleman, 2006; Crowe, 2006; d'Haenens et al., 2007; Farmer, 2011; Mossberger, 2009;VanFossen, 2006) • A more multi-layered, open-ended notion of political interaction (Coleman, 2006) • Lifestyle politics—personally expressive or self-actualizing politics (W. L. Bennett et al., 2009) • Civic engagement (W. L. Bennett et al., 2009; Citron & Norton, 2011) • A participatory digital citizen (Richards, 2010) • A justice-oriented digital citizen (Richards, 2010) • Partaking freely in the Internet's diverse political, social, economic, and cultural opportunities (Citron & Norton, 2011) • Research significant social issues (Farmer, 2011) • Voice opinions to a global audience (Farmer, 2011) • Building safe spaces and communities (Couros, 2014)
Economic engagement	• Economic engagement (Citron & Norton, 2011; Mossberger et al., 2008) • Consumer skills (Simsek & Simsek, 2013) • Digital commerce (Georgia Virtual Learning, 2013; Ribble, 2004; Ribble & Bailey, 2007)
Cultural engagement	• E-cultural citizens (d'Haenens et al., 2007) • Engagement based on culture, everyday experiences, narratives, and gaming (Knight Foundation, 2012)
Personalized engagement	• Leadership for digital citizenship (International Society for Technology in Education, 2007) • A sense of ownership (Microsoft, 2014) • Individual empowerment of digital technology (Ohler, 2012) • Self-monitored habits (Heick, 2013) • Quality of habits, actions, and consumption patterns that impact the ecology of digital content and communities (Heick, 2013) • Managing personal information (Couros, 2014)

APPENDIX D

Elements of Digital Citizenship as Critical Resistance

Sub-themes	Elements
Critique of the existing power structure	• Recognizing, contesting, and negotiating with the powers that exist to control them (Coleman, 2006)
Political activism	• Capacity to resist and reshape to hack (Longford, 2005)
	• Egypt's wired revolutionary generation that challenge the status quo and want educational reform using social media (Herrera, 2012)

APPENDIX E

Changes in Digital Citizenship as Ethics

Year	Elements
2003	• Digital awareness (I. R. Berson & Berson, 2003)
2004	• Being aware of technology-related ethical, societal, and cultural issues; digital etiquette; personal responsibility; digital rights; digital security (Ribble, 2004)
2005	• Critical awareness of how code constitutes the conditions of possibility for different norms, models (Longford, 2005)
2006	• Free expression (Coleman, 2006)
2007	• Careful attention to diverse online communities (Kurubacak, 2007)
	• Digital etiquette, digital rights, digital law, digital security (Ribble & Bailey, 2007)
	• Safe, legal, and responsible use of information and technology (International Society for Technology in Education, 2007)
	• Personal responsibility (International Society for Technology in Education, 2007; Ribble & Bailey, 2007)
2008	

(Continued)

Appendix E (Continued)

Year	Elements
2009	• Digital etiquette (Ribble, 2009)
	• Personal responsibility (Common Sense Media, 2009; Ribble, 2009)
	• Roles and responsibilities as a user of the Internet (Nebel et al., 2009)
2010	• Personal responsibility (Richards, 2010)
2011	• Digital citizenship awareness (Hollandsworth et al., 2011)
	• Dignity and safety of other users (Citron & Norton, 2011; Hancock, 2011; Ohler, 2011)
	• Digital security (Hancock, 2011)
	• Optimal and safe use of ICTs (Unicef, 2011)
	• Behavior in social network sites (Lenhart et al., 2011)
2012	• Personal, community, and global responsibility (Ohler, 2012)
	• Respecting the impact of one's actions beyond the self on the larger collective (Felt et al., 2012)
	• Appropriate norms associated with technology use, especially social media (Winn, 2012)
2013	• Responsible behavior online (Berman-Dry, 2013)
	• Safe, legal, responsible, and ethical use of digital information (Robb & Shellenbarger, 2013)
	• Personal responsibility, responsibilities of self and others, dignity and safety of other users (Davis, 2013)
	• Respecting copyright and intellectual property (Robb & Shellenbarger, 2013)
	• Smart, responsible, respectful, appropriate, ethical decisions (Orth & Chen, 2013)
	• Addressing the situation with regard to privacy, copyright, infringement, cyber bullying, plagiarism, and exposure to inappropriate content (Afshar, 2013)
2014	• Safe and confident use of technology (CyberWise, 2014)
	• Respectful, responsible, and safe online behavior (DigitalLiterarcy.gov, 2014)
	• Responsibility and digital rights (Microsoft, 2014)
	• Respecting and protecting self and others, and respecting copyright and intellectual property (Educational Origami, 2014)

APPENDIX F

Changes in Digital Citizenship as Media and Information Literacy

Year	Characteristics
2003	• Digital literacy skills (I. R. Berson & Berson, 2003)
2004	• Access to information technology and digital communication (Ribble, 2004) • Computer proficiency (Shelley et al., 2004) • Digital literacy skills (M. J. Berson & Berson, 2004)
2005	
2006	• Online reading and writing (L. Bennett & Fessenden, 2006)
2007	• Access to information technology (Ribble & Bailey, 2007) • Digital literacy skills (Ribble & Bailey, 2007) • Digital communication (d'Haenens et al., 2007; International Society for Technology in Education, 2007; Ribble & Bailey, 2007) • Culturally responsive, social justice-oriented, critical, and creative communication (Kurubacak, 2007) • Digital health and wellness (Ribble & Bailey, 2007) • Collaboration (Kurubacak, 2007)
2008	• Access to information technology (Mossberger et al., 2008) • Technical competence/proficiency (Mossberger et al., 2008) • Information literacy skills (Mossberger et al., 2008) • Information literacy, media literacy, or network literacy; the ability to access, evaluate, synthesize, and build upon information and media (Salpeter, 2008)
2009	• Access to information technology (Mossberger, 2009; Ribble, 2009) • Effective use of the Internet (Mossberger, 2009) • ICT literacy (Dede, 2009) • Educational competencies (Mossberger, 2009) • Digital literacy skills (Common Sense Media, 2009; Dede, 2009; Mossberger, 2009) • New media literacies skills (Hobbs & Jensen, 2009) • Combining cognitive, affective, psycho-social, and technological skills (Dede, 2009) • Knowledge (Nebel et al., 2009)
2010	• Digital literacy skills (Becta, 2010; Hicks et al., 2011)
2011	• Access to information technology (Moeller et al., 2011) • Effective use of the Internet (Ohler, 2011)

(*Continued*)

Appendix F (Continued)

Year	Characteristics
2012	• Use of web applications, technical skills, instrumental competence, skills in acquiring and using information, communication skills and socio-communicative competence, emotional competence, knowledge (Simsek & Simsek, 2013) • Digital literacy skills and new media literacies skills, social learning skills, emotional learning skills (Felt et al., 2012) • Digital health and wellness (Ohler, 2012)
2013	• Digital literacy skills and digital communication (Georgia Virtual Learning, 2013) • Digital health and wellness (Marcinek, 2013) • Civic knowledge (Blevins et al., 2013)
2014	• Digital literacy skills (Microsoft, 2014)

APPENDIX G

Changes in Digital Citizenship as Participation/Engagement

Year	Characteristics
2003	
2004	• Digital commerce (Ribble, 2004)
2005	
2006	• Political engagement/participation (Coleman, 2006; Crowe, 2006; VanFossen, 2006) • A more multi-layered, open-ended notion of political interaction (Coleman, 2006)
2007	• Political engagement/participation (d'Haenens et al., 2007) • Digital commerce (Ribble & Bailey, 2007) • E-cultural citizens (d'Haenens et al., 2007) • Leadership for digital citizenship (International Society for Technology in Education, 2007)
2008	• Economic engagement (Mossberger et al., 2008)
2009	• Civic engagement (Mossberger, 2009 • Political engagement/participation (Mossberger, 2009)

Appendix G (Continued)

Year	Characteristics
	• Lifestyle politics: personally expressive or self-actualizing politics using social media (W. L. Bennett et al., 2009)
2010	• A participatory digital citizen (Richards, 2010)
	• A justice-oriented digital citizen (Richards, 2010)
2011	• Civic engagement (Citron & Norton, 2011)
	• Political engagement/participation (Farmer, 2011)
	• Partaking freely in the Internet's diverse political, social, economic, and cultural opportunities (Citron & Norton, 2011)
	• Research significant social issues (Farmer, 2011)
	• Voice opinions to a global audience (Farmer, 2011)
	• Economic engagement (Citron & Norton, 2011)
2012	• Consumer skills (Simsek & Simsek, 2013)
	• Individual empowerment of digital technology (Ohler, 2012)
	• Engagement based on culture, everyday experiences, narratives, and gaming (Knight Foundation, 2012)
2013	• Digital commerce (Georgia Virtual Learning, 2013)
	• Self-monitored habits (Heick, 2013)
	• Quality of habits, actions, and consumption patterns that impact the ecology of digital content and communities (Heick, 2013)
2014	• Building a safe spaces and communities (Couros, 2014)
	• A sense of ownership (Microsoft, 2014)
	• Managing personal information (Couros, 2014)

APPENDIX H

Changes in Digital Citizenship as Critical Resistance

Year	Characteristics
2005	• Capacity to resist and reshape to hack (Longford, 2005)
2006	• Recognizing, contesting, and negotiating with the powers that exist to control them (Coleman, 2006)
2012	• Egypt's wired revolutionary generation who challenge the status quo and want educational reform using social media (Herrera, 2012)