

DIGITAL CITIZENSHIP IN TURKEY AND IN THE WORLD: EDUCATIONAL APPLICATIONS AND TECHNOLOGY

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Abstract: Technological developments and movement to the digital era necessitate redefining some concepts or updating existing definitions. While identifying new notions, a gap is observed in the educational and social structure of 21st century. Among the standards of national educational technology, it is emphasized that both student and the teacher are required to have digital citizenship characteristics. Thus, it is thought that the quality in education will be increased. While defining digital citizenship, some elements are essential to mention. These can be listed as digital access, digital commerce, digital communication, digital literacy, digital etiquette, digital law, digital rights and responsibilities, digital health and wellness, and digital security. The present study gives information about digital citizenship through introducing different definitions stated by several researchers in the literature and examined with the educational activities at schools. Furthermore, it is emphasized that investing money on expensive technologies and facilities is not enough to meet the needs for the education of these individuals.

Keywords: Digital citizenship, Digital identity, Digital technology, Educational applications.

INTRODUCTION

Technological developments which are the centre of current information age move people to a digital era. This movement necessitates redefining some concepts or updating existing definitions. To illustrate, the concept of citizenship is defined as “the quality of an individual’s response to membership in a community” (Arthur, Davies and Hahn, 2008). Through technological developments, this concept leads to occurrence of a new term as “digital citizenship.” Digital is described as “using an electronic system that changes sounds or images into signals in the form of numbers before it stores them or sends them” (McIntosh, 2013).

The definitions including these two concepts together are expressed in different ways by authors in literature. Ribble (2011) states that digital citizenship is a new way to think about digital technologies. According to his definition, digital citizenship means using technology appropriately and responsibly. He expresses that focal point is to think about how technology should be used instead of considering about what technology can do. According to Mossberger (2007), this concept is defined as a competence of taking part in a society through an online environment. Çubukçu and Bayzan (2013) express that digital citizen refers to a person using digital technologies properly in digital platforms by knowing ethical rules and responsibilities. In the light of these facts, digital citizenship can be defined as all appropriate activities, ethical and responsible behaviours of a person on electronic media.

DIGITAL CITIZENSHIP

Digital citizenship is a notion which arose from technological innovations and developments of globalising world. In District Administration (2014), it is pointed out that “You need a driver’s license to drive. You need a pilot’s license to fly.” Then it is asserted, “Why don’t you need a license to navigate digital technology?” Even though digital citizenship is considered for all individuals (Gülseçen, Özdemir, Çelik, Uğraş and Özcan, 2013), it is seen that the concept started to be mentioned with the use of personal computers and developing technology in 1980s (Prensky, 2001; Jones, Ramanau, Cross, and Healing, 2010; Palfrey and Gasser, 2008; Tapscott, 2009 and Oblinger, 2003). By the way, the computers started to have an important role in our lives increasingly. This situation caused a turning point in the lives of individuals. While they were not having enough experiences with the digital era as computers, technologies, social networks; they started to have more experiences on the digital era to supply their needs. Educational applications at school may help to individuals to get experiences around the developing technology.

In changing world, the individual’s needs changed, too. These areas of needs include daily life but also the educational experiences. There are some sharers to supply the needs of individuals such as teachers, students, administrators, coaches, and computer science educators (Orhan, Kurt, Ozan, Vural, and Türkan, 2014). In this process teachers should be more oriented while acting the digital citizenship characters at the educational applications. Among the standards of national educational technology, it is emphasized that both student and the teacher are required to have digital citizenship characteristics. One of the performance indicators of National Educational Technology Standards for students is “digital citizenship.” For the teachers, there are five performance indicators. These can be listed as “facilitating and inspiring student learning and creativity, designing and developing digital-age learning experiences and assessment, modelling digital-age work and learning, promoting and modelling digital citizenship and responsibility, and engaging in professional growth

and leadership.” (http://www.iste.org/docs/pdfs/20-14_ISTE_Standards-T_PDF.pdf) For this reason, teachers should carry these characters as define in the standards. Because these teachers who have these character as define in the standards have an important role in the education process. Their usage of technology, method, learning approaches will affect the quality of education. Teachers are also supposed to design materials and activities to meet the educational needs in order to carry digital citizenship characters. It is believed that this attitude enhances the quality. Correspondingly, numerous research and books on digital citizenship are available in national and international literature.

DIGITAL CITIZENSHIP, EDUCATION AND TECHNOLOGY

Our educational activities are surrounded by the technology. Especially, the investment on the educational era is increasing in our country. However, the investment is not enough to supply the students’ needs. Alkan (2011) discusses that the biggest mistake in our country is to establish expensive facilities and to invest for unnecessary technologies because of their results. Meanly, supplying technological environment to the students is not enough to support and encourage the digital citizenship in the schools. Today, expensive educational technologies are not enough for students who can define digital citizenship. However, the characteristics of digital citizenship can be thought as a special identity designed for individuals of the era. This identity provides competence for individuals to use technology in electronic media in an appropriate way. These competences include nine basic elements of digital citizenship. Ribble (2011) lists the elements of digital citizenship as; digital access, digital commerce, digital communication, digital literacy, digital etiquette, digital law, digital rights and responsibilities, digital health and wellness, and digital security. These elements form a basis for digital citizenship. Moreover, they create the digital identity of individuals who have these characteristics.

The schools have to supply the needs of students who define as digital citizenship and encourage them to be the characters of this platform. As listed in the study of Ribble (2011), the characters of digital citizenship are explained on the concept of educational activities at schools. In these concepts, the schools can sustain the educational activities by giving them digital access opportunities. For example, the students can be more active by using the web 2.0 tools and hyperlinks. Moreover, a digital citizen can be exposed to some damages like fraud, malware and plagiarism. For this reason, a digital citizen is able to make analysis on the information reached through online media. Based on digital commerce, use of online shopping and banking, and trading while using these systems are as important as protecting personal information and choosing secure webpages. A digital citizen is supposed to carry out commercial activities without losing any information and data. Otherwise, a person can face with many problems and commercial risk in online media.

The web 2.0 tools have been affecting the digital communications. Using internet in every phase of life has formed a basis for using web 2.0 tools. Widespread use of mobile technologies and improvements in mobile application software are among the developments are important in today’s digital citizenships. Today, members of digital students can communicate through social networks almost everywhere, they can express themselves freely in an online community; they can learn autonomously and carry out several activities. The usage of social networks in the educational process may help them to work in community. However, communicating through internet technology in online media and social network may lead to some interaction problems. Sharing personal information with people who you do not know well during communication may cause violation of right of privacy. Also the students mostly explore the internet sources. The schools may help them to be careful while they are having experiences on the internet. Digital literacy also plays an important role to have digital citizenship. Shifting to the digital eras requires redefining the educational activities. Students who have digital literacy are able to access more easily to the knowledge looked for. Digital literacy has become to gain more importance than the generally known literacy since nowadays a child starts to use digital tools and has experience about these tools before educational activities. Digital literacy includes correct use of internet, effort for reaching right information, sharing the true information on internet and carrying out appropriate educational process based on these features.

Digital etiquette has an impact on the digital environment to define the behaviours of the students. It is essential to be respectful and responsible while using internet tools in online media. For example, an appropriate language and ethical behaviours in online media can be shown as ethical fact. When the ethical behaviours are not regarded, some problems like sharing provoker contents or cyber mobbing tend to occur. The necessity of digital law also should be considered among the educational activities. As in all digital environments, there are some rules on internet. A digital citizen needs to be aware that criminal acts in real life are also seen as crime on internet. Therefore, individuals who commit an illegal act should be reported. On the other hand, most of digital tools offer internet technology. Internet is an environment in which everyone expresses themselves freely. In addition, this freedom should be restricted in order not to bother other people. This balance point is formed through knowing digital rights and responsibilities. For example, there are some rules for using information which will be cited and some responsibilities are available for using this information. In a similar vein, there are

some responsibilities of a digital citizen about injustice behaviours and illegal contents on internet. At that point, individuals have some digital rights and responsibilities in terms of all risk groups on internet.

Health factor in digital environment is mostly seen negatively. While digital citizens are using digital tools, online technologies and computers, they are exposed to physical, psychological and mental diseases. These diseases can be listed as musculoskeletal diseases and mental disorders (especially for children) which stem from internet addiction. It is clear that internet contents are among the factors affecting digital health and wellness in digital citizenship. In digital environment, security has become as important as physical security in daily life. It is predicted that some concepts like cyber security and cyber awareness will be used commonly in this decade. Cyber security gaps and increasing number of cyber-attacks can affect technological systems of countries and digital tools of individuals. Concepts of digital security or cyber security are increasing the prominence of the concepts like internet security and secured internet day by day. A digital citizen is supposed to be careful about personal information security and credibility of web pages on the internet. Furthermore, digital citizens should equip their computers with protective measures such as filtering and anti-virus programs. Otherwise, internet can cause risking elements in terms of security.

STUDIES ON DIGITAL CITIZENSHIP

There are several studies, activities and application on digital citizenship in our country. A short time ago, “Gezi Park” protests showed that digital population in all groups with different standpoints came together in a virtual environment (Babaoğlu, 2013). Similarly, e-state application is a kind of digital citizenship application based on the principle of conducting works through a digital platform. Research assignments of students form an important part of digital citizenship identity as well. An individual analyses the reliability and validity of useful information on digital environment in which he searches for the assignment. He knows the ethical rules about who owns the information and behaves regarding this awareness. He contributes to development of digital culture and digital world with the conscious of rights and responsibilities. Correspondingly, numerous research and books on digital citizenship are available in national and international literature. Some of these studies can be summarized as below;

In their book “Digital Citizenship in Schools”, Ribble and Bailey (2007) explain why educators, students and parents should care about digital citizenship. Using various technologies and our interaction with these technologies has created a digital society. This digital society provides its members opportunities for education, employment, entertainment, and social interaction. The authors emphasize the importance of digital citizenship. Moreover, they offer professional development activities to help educators for integrating digital citizenship concepts into the classroom.

Another source is “Teaching with Digital Images: Acquire, Analyse, Create, Communicate” written by Bull and Bell (2005). In the book, it is suggested that digital cameras provide new opportunities for the classroom. Students like the technology, and digital devices can be used for curricular objectives. The topics of the book include digital photography, digital images, curriculum design, technology integration and lesson plans. In consideration of this study, it can be said that the teacher can use these digital technologies to supply educational needs of students.

Nebell, Jamison and Bennett (2009), in their study entitled “Students as Digital Citizens on Web 2.0” examined how new technologies can be integrated into the curriculum and classroom environments. They designed learning experiences related to digital citizenship with the aim of preparing students for participating fully in the world of the Internet. The authors provide some examples of Internet sites and activities that a teacher can use to incorporate the skills, knowledge, and responsibilities of digital citizenship into an elementary classroom setting.

Farmer (2011), in the study entitled “Teaching Digital Citizenship”, highlights that educators need to teach the learning community about digital citizenship. In this way, according to the author, everyone can understand, address, and prevent technology abuse. In the light of these, the author gives definition of digital citizenship and discusses its effects on individuals and the learning community at large. Besides, the author makes some suggestions for strategies in digital citizenship education.

Kaya and Kaya (2014) also investigated Computer and Instructional Technology Education teacher candidates’ perceptions of digital citizenship in their study. The findings of the study showed that the majority of prospective teachers associated the concept of digital citizenship with digital technology as facilitating individual’s life. It was apparent that the concept was perceived correctly. Findings revealed that teacher candidates mostly use digital technology for social networking, online shopping and searching something for their assignments. Digital commerce, one of the nine elements of digital citizenship, is used by all prospective teachers.

Bensghir (2000), in his study titled “Communication of Citizen and Government by E-mail” emphasized the effective role of digital communication between citizen and government. He also investigated the interactive communication, participatory and collaborative management between government and citizen. This study

pointed that the e-mail may contribute to effective use of digital communication. This means the government is trying to encourage the citizen to use new digital technologies while communicating.

Aktürk, Yazıcı and Bulut (2013), in their study “The Effects of the Use of Animations and Digital Maps in Social Studies on Students’ Spatial Perception Skills” find out that students in the experimental group who were exposed to the use of animations and digital maps had higher academic performance than those did in the control group. These findings may bring light for teacher to use the digital technologies in their educational applications as an indicator of National Standards of Technology.

The studies on developing digital technologies are not limited to those studies. There are also some digital technologies to make easier the people’s lives in Turkey and in the world. According to Lu (2011) and Gonzales and Rossi (2011), there are smart cities applications in the world to economic regulation, social management and control in many areas of public services to the market by using Information and Communication Technology in the lives of individuals. For example, some traffic lamps have the smart system like sensor (Gülseçen, Özdemir, Çelik, Uğraş and Özcan, 2013). It helps people to make easier their lives. Meanly, it is clearly based on the digital technologies. These applications are the results of to be the citizen of digital decade. At the same time, school applications should be based on the digital applications to help the students’ digital citizenship.

CONCLUSION

The present study gives information about digital citizenship through introducing different definitions stated by several researchers in the literature. It is emphasized that investing money on expensive technologies and facilities is not enough to meet the needs for the education of the individuals. Instead, the teachers are required to support education using related materials, activities and applications to enhance learning. In addition, the study summarizes particular studies about digital citizenship in the literature and focuses on the importance of the era we live in. As a conclusion, national educational technology standards for teachers (2008), shows us teacher should be digital model to the students (Orhan et al, 2014) at the educational experiences. The digital model of teachers should serve the components of digital citizenship, encourage them to carry the characters of digital citizenship, support their rights and responsibilities while being digital citizenship by using the technologies truly at the educational applications.

Looking at the afore-mentioned studies, it is possible to assert that increasing number of digital citizenship and new identities in the world is really striking fact. It is significant that educators and parents are required to be more sensitive about digital citizenship. They are responsible for raising students who have proper features for national educational technology standards.

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