

Examining the Need of Digital Citizenship Education for Adolescents in the Current Digital Landscape

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Adolescents are growing up in a digital era, and the increasing role of technology in our lives presents both challenges and opportunities. A survey study was conducted to address the need for Digital Citizenship Education (DCE) in school-going adolescents, as they need to learn how to make sound judgments when navigating the digital world. The study found that 79% of students have digital access at home, 83% purchase products online, and 73% have social media accounts, with 24% talking to strangers online. However, only 21% use the internet at school, and 78% are unaware of the term DCE. The survey also revealed that many students lack awareness of cyber laws, struggle to determine the reliability of online information, and believe everything they see online is true. This research emphasizes the importance of developing a customized DCE curriculum for adolescents to participate safely, ethically, effectively, and responsibly in the digital community.

Keywords: digital natives, digital citizenship, digital citizenship education, adolescents

INTRODUCTION

In recent years, our society has technologically advanced more rapidly than in any of our history. The digital world has become an integral part of our daily lives, and with it comes new challenges and responsibilities. As per the study, 83% of Indian children aged 10-14 are using a smartphone, which is 7% higher than the international average of 76 % (The Hindu, 14 May 2022). They are growing in the digital era. As we continue to rely more on technology and the internet, it is crucial that individuals are equipped with the skills and knowledge to navigate this new digital landscape. This is where digital citizenship education comes in, providing individuals with the skills and understanding they need to safely and effectively participate in the digital world. The importance of digital citizenship education cannot be overstated, and in this research paper, we examined the need for this education, exploring its benefits and the challenges it presents.

Digital citizenship education is important to help people understand the rights and responsibilities that come with using technology. It also helps people learn how to use technology safely and ethically, and how to make positive contributions to the online community. Digital citizenship education is important for all ages, especially for children and adolescents, whose online behavior may have long-term repercussions. It encourages people to be thoughtful, responsible digital citizens and helps them develop the skills to navigate the online world safely and effectively.

Digital Citizens

Digital citizens are those individuals who work for the digital society and benefit from digital society. According to Karen Mossberg, (the author of *Digital Citizenship: The Internet, Society, and Participation*), digital citizens are “those who use the internet regularly and effectively, to engage in society, politics, and government”.

Digital Citizenship

Digital citizenship is a 21st-century critical life skill that ensures safe participation in the digital world and makes the best use of the internet in professional and personal life. The term digital citizenship is a big umbrella that means everything from being safe online, being media literate, knowing about one’s a digital footprint, rights and responsibility, and cyberbullying (Ribble, 2015) in a digital world. Arif (2016) breaks digital citizenship down into three concepts: ethics, information literacy, and participation/engagement of digital citizens in Internet-mediated societal action safely, ethically, effectively, and responsibly in the digital community. Safe and responsible online communication and collaboration have brought the concept of digital citizenship (Ribble, Bailey, & Ross, 2004; Ribble, 2008; Shelley, 2004). According to Ribble and Bailey (2007), digital citizenship is the online display of behaviors that ensure the legal, safe, ethical, and responsible use of information and communication technologies. Digital citizenship refers to the responsible use of technology by digital citizens. It reinforces the positive aspect of technology so that everyone can work and participate in the digital world. It refers to the ability to think critically, behave safely, and participate responsibly in our digital world.

Digital Citizenship Education

Digital Citizenship Education is the empowerment of children through education or the acquisition of knowledge & skills for learning and active participation in the digital society. “The competent and positive engagement with digital technologies (creating, working, sharing, socializing, investigating, playing, communicating, and learning); participating actively and responsibly (values, skills, attitudes, knowledge) in communities (local, national, global) at all levels (political, economic, social, cultural and intercultural); being involved in a double process of lifelong learning (in formal, informal and non-formal settings) and continuously defending human dignity”(Council Of Europe). Digital citizenship education is a comprehensive educational program aimed at teaching individuals about the responsible and ethical use of technology and the internet. It covers a range of topics, including online privacy and security, responsible online behavior, and the ability to critically evaluate and use digital information. The goal of digital citizenship education is to equip individuals with the skills and knowledge they need to participate in the digital world in a safe, responsible, and ethical manner, and to help them make informed decisions about their use of technology. Digital citizenship education can take place in a variety of settings, including schools, community organizations, and online forums. It can be taught as a standalone course or integrated into the existing curriculum. The focus of digital citizenship education is not only on technical skills, but also on values such as respect for others, ethical decision-making, and responsible communication.

In this study, the term “digital citizenship education” refers to the nine components outlined in Mike Ribble’s book “*Digital Citizenship in Schools*.” It serves as a framework for educators to understand and address digital citizenship issues. These components cover important topics such as internet safety, privacy, and security, positive online relationships and communication, information literacy, preventing cyberbullying, and utilizing technology effectively.

ADOLESCENTS

Adolescence is defined as the period of transition between childhood and adulthood, typically characterized by physical, emotional, and cognitive changes (Lerner & Steinberg, 2004). According to the developmental stage model, adolescence begins around the age of 11 or 12 and continues until the early twenties (Lerner, 2006). This period is marked by significant physical changes, such as puberty and the onset of secondary sexual characteristics, as well as emotional and cognitive changes, such as increased independence and self-awareness (Steinberg, 2008). Adolescence is a critical time for individuals as they navigate the challenges and opportunities of this period and begin to establish their identity and place in the world (Lerner & Steinberg, 2004).

Adolescents face numerous risks in the digital world, including cyberbullying, online harassment, sexting, exposure to inappropriate content, and digital addiction (Ybarra, Mitchell, Wolak, & Finkelhor, 2006). Additionally, they may also be vulnerable to online predators and may engage in risky behaviors such as sharing personal information with strangers (Lenhart, Purcell, Smith, & Zickhur, 2011). However, some common risks that adolescents face in the digital world include online harassment and bullying, exposure to inappropriate content, oversharing personal information, cyberstalking, addiction to technology, and exploitation. It is important for young people to be taught digital literacy skills and online safety measures to minimize these risks.

REVIEW OF RELATED LITERATURE

In a study conducted by Tangül and Emrah (2021), the opinions of students and teachers on digital citizenship education were compared. The researchers evaluated the level of digital citizenship among final-year teacher candidates studying in the departments of classroom teaching and among primary school classroom teachers. The results showed that the primary school classroom teachers had a higher score in the digital citizenship sub-dimension compared to the teacher candidates. The findings indicated a need for digital citizenship education among teacher candidates.

Quaglio and Millar (2020) presented key insights on the potentially negative effects of internet use in their book. The book focused on the STOA project and emphasized the concept of internet addiction and its different forms. The authors also delved into the harmful impact of excessive internet use on cognitive development and the potential negative effects associated with information overload. The study also shed light on the harm that internet use can cause to social relationships and communities. Additionally, the book provided policy options aimed at reducing the risks and harm associated with internet use.

In a study by Scheerder et al. (2019), the researchers sought to explore the disparities in the negative impacts of Internet use among different social groups. They used a qualitative approach and found that when negative outcomes occurred, individuals with higher levels of education were more likely to take control and mitigate the effects, while individuals with lower levels of education were more likely to simply experience the negative consequences without taking any corrective action.

In 2016, Snyder conducted a study to examine the growth of students as digital citizens through global collaboration and social media. The study was based on Ribble's theory of digital citizenship and Siemens's theory of connectivism. The research questions were aimed at understanding how students' digital citizenship skills were developed through engagement in global collaboration projects and social media. The findings showed that participating in global collaborations and using social media had a positive impact on student's development as digital citizens. The students were motivated to take action, overcome barriers, use social media for learning and collaboration, and adopt a more diverse and inclusive view of the world.

The UNESCO (2015) report titled "Fostering Digital Citizenship through Safe and Responsible Use of ICT" is a comprehensive analysis of the challenges and opportunities of the digital age, with a focus on promoting the safe and responsible use of information and communication technologies (ICT) among young people. The report outlines the concept of digital citizenship and the need for education and policies that foster the safe and responsible use of ICT. The report highlights the importance of addressing the digital divide, ensuring that all young people have access to ICT, and developing digital literacy skills to enable

them to participate fully in the digital world. It also discusses the importance of privacy, security, and the protection of personal information online.

In 2010, a study was conducted by Cliftin J. Boyle to assess the impact of digital citizenship education on urban school students in Northeast America. The study used a quasi-experimental design and had 150 participants, with 75 in the treatment group who were exposed to the digital citizenship curriculum and 75 in the control group who were not exposed to the curriculum. The digital citizenship curriculum was based on a guide created by Ribble and Bailey (2004). The results of the study indicated that there was a significant difference in the normative behavior of technology use among participants who were exposed to the digital citizenship curriculum compared to those who were not. The study concluded that digital citizenship education has a significant impact on students' normative behavior.

OBJECTIVE

To describe the need for digital citizenship education as a 21st-century skill/ to explain the importance of digital citizenship education as a key competency in the 21st century.

Specific Objectives

- To describe the contextual need for Digital citizenship education for school-going adolescents.
- To explore the benefits of digital citizenship education.

RESEARCH METHODOLOGY

- **Sample selection:** The sample of 233 students was selected from private schools in the Lucknow district, India with a focus on students aged between 11 and 16 years. The schools were selected to ensure a diverse representation of students from different socioeconomic backgrounds and cultures.
- **Instrument development:** A survey questionnaire was developed by the researcher to gather data on the student's perceptions and experiences with digital citizens' education. The questionnaire consisted of closed-ended questions and was reviewed by experts in the field of digital citizenship education to ensure its validity and reliability. This study covers the core elements of digital citizenship education (Ribble,2004). Nine categories for digital citizenship Education were Digital Access, Digital commerce, Digital communication, Digital etiquette, Digital Law, Digital Health, Digital literacy, Digital right and responsibility, and Digital security. One direct question was asked regarding their awareness of digital citizenship education.
- **Data collection:** The survey was administered to the students in a group setting during regular class time. The students were given a clear explanation of the purpose of the study and were assured of the confidentiality of their responses.
- **Data analysis:** The collected data was analyzed and described using percentages.
- **Ethical considerations:** The study was approved by the institutional review board, and all participants provided informed consent before participating in the survey. The students were also assured of the confidentiality of their responses and were informed that their participation was voluntary.

RESULTS

FIGURE 1
THE SURVEY RESULTS HAVE BEEN VISUALIZED THROUGH A BAR GRAPH TO SHOWCASE THE PERCENTAGE OF PRIVATE SCHOOL STUDENTS IN NEED OF EDUCATION ON VARIOUS COMPONENTS OF DIGITAL CITIZENSHIP

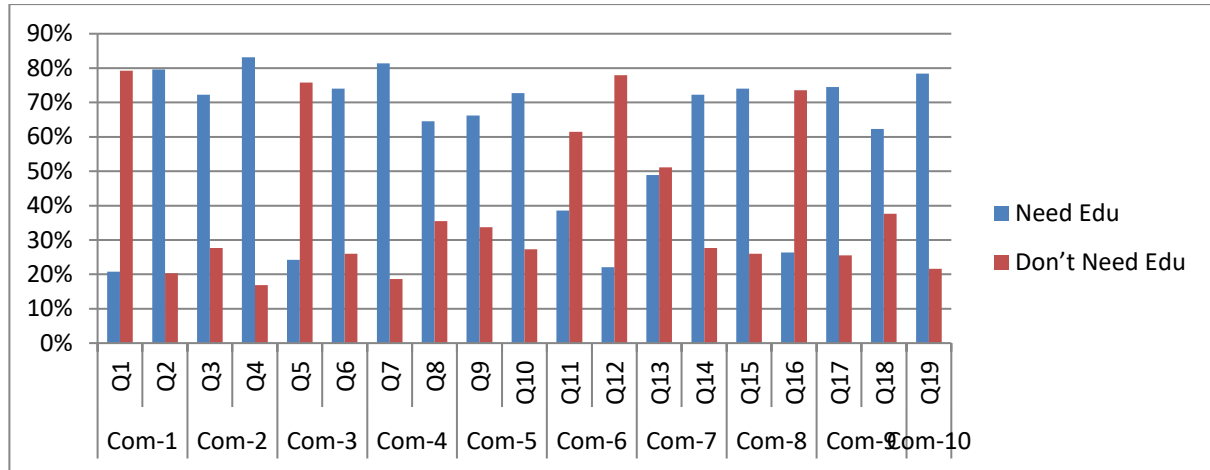


TABLE 1
VARIOUS COMPONENTS OF DIGITAL CITIZENSHIP EDUCATION THAT WERE SURVEYED AND THE PERCENTAGE OF THE SAMPLE THAT INDICATES A NEED FOR EDUCATION IN EACH AREA

| DCE COM. | ITEM NO | ITEMS | NEED DCE | DON'T NEED DCE |
|-----------------------------------|---------|--|----------|----------------|
| Digital Access | Q.1 | Number of laptops, computers, and phones access at home | 21% | 79% |
| | Q.2 | Access to school internet | 80% | 20% |
| Digital commerce | Q.3 | Online shopping | 72% | 28% |
| | Q.4 | Aware of various online websites | 83% | 17% |
| Digital communication | Q.5 | Talked to random strangers online | 24% | 76% |
| | Q.6 | Appropriate use of various communication methods | 74% | 26% |
| Digital Law | Q.7 | Use of text and graphics in their projects | 81% | 19% |
| | Q.8 | Aware of different Cyber Laws in India | 65% | 35% |
| Digital Rights and Responsibility | Q.9 | Do you stand up to cyberbullying | 66% | 36% |
| | Q.10 | Have a social media account | 73% | 27% |
| Digital safety and security | Q.11 | Installing and updating antivirus software on laptops and phones | 39% | 61% |
| | Q.12 | Do they lock their laptops, computers tec | 22% | 78% |

| DCE COM. | ITEM NO | ITEMS | NEED DCE | DON'T NEED DCE |
|--------------------|---------|---|----------|----------------|
| Digital literacy | Q.13 | unable to assess the reliability and authenticity of online information | 49% | 51% |
| | Q.14 | Information that they see online is true | 72% | 28% |
| Digital Etiquette | Q.15 | Do they have a personal phone | 74% | 26% |
| | Q.16 | Do they bring their mobile to school | 26% | 74% |
| Digital well-being | Q.17 | Mobile impact on their health | 74% | 26% |
| | Q.18 | Anybody- discomfort after prolonged online classes | 62% | 38% |
| General Awareness | Q.19. | Are they aware of digital citizenship Education | 78% | 22% |

- Item 1: 79% of the respondents have access to laptops, computers, and phones at home while 21% do not.
- Item 2: 20% of the respondents use school internet, while 80% do not. This has to be investigated.
- Item 3: 72% of the respondents have shopped online, while 28% have not.
- Item 4: 83% of the respondents are aware of various online websites, while 17% are not.
- Item 5: 24% of the respondents have talked to random strangers online, while 76% have not.
- Item 6: 26% of the respondents know the appropriate use of various communication methods, while 74% do not.
- Item 7: 81% of the respondents use text and graphics in their projects, while 19% do not.
- Item 8: 35% of the respondents are aware of the different Cyber Laws of India, while 65% are not.
- Item 9: 36% of the respondents stand up to cyberbullying, while 66% do not.
- Item 10: 73% of the respondents have a social media account, while 27% do not.
- Item 11: 61% of the respondents have installed and updated antivirus software on their laptops and phones, while 39% have not.
- Item 12: 78% of the respondents lock their laptops, computers, etc., while 22% do not.
- Item 13: 51% of the respondents are unable to assess the reliability and authenticity of online information, while 49% can.
- Item 14: 72% of the respondents believe the information they see online is true, while 28% do not.
- Item 15: 74% of the respondents use their phones, while 26% do not.
- Item 16: 26% of the respondents bring their mobile to school, while 74% do not.
- Item 17: 26% of the respondents believe that their mobile usage has a very strong impact on their health, while 74% believe that it has no or moderate impact.
- Item 18: 62% of the respondents experienced body discomfort after prolonged online classes, while 38% did not.
- Item 19: 78% of the respondents are aware of digital citizenship education, while 22% are not.

RESULTS AND DISCUSSION

The results suggest that a large majority of students and adolescents have access to laptops, computers, and phones at home (79%), with only 21% not having access. However, there seems to be a significant gap in school internet access, with only 20% of students using it. This could be an area that requires further investigation.

In terms of digital commerce, 72% of students have shopped online and 83% are aware of various online websites, suggesting a good level of familiarity with digital commerce. On the other hand, only 24% have talked to random strangers online and 26% know the appropriate use of various communication methods, indicating that there is room for improvement in digital communication.

81% of students use text and graphics in their projects, but only 35% are aware of the different Cyber Laws of India, highlighting the need for education in this area. In terms of digital rights and responsibility, 66% do not stand up to cyberbullying and 73% have a social media account, suggesting a need for education in responsible social media usage.

61% of students have installed and updated antivirus software on their laptops and phones, and 78% lock their devices, showing a basic level of digital safety and security awareness. However, 49% of students are unable to assess the reliability and authenticity of online information and 72% believe that the information they see online is true, indicating a need for digital literacy education.

The results show high usage of personal phones (74%) and a small proportion of students bringing their mobile phones to school (26%). Additionally, 74% of students experience physical discomfort after prolonged online classes, indicating a need for digital well-being education. Furthermore, 78% of students lack knowledge of digital citizenship education, which emphasizes the importance of increasing awareness and understanding of digital citizenship.

In conclusion, the results highlight the need for digital citizenship education among students and adolescents in private schools. While they have access to digital devices and are familiar with digital commerce and basic digital safety, there is a gap in their knowledge and understanding of digital communication, cyber law, responsible social media usage, digital literacy, and digital well-being. The survey also indicates that a majority of students (78%) are not aware of the term digital citizenship education. This highlights the need for schools to prioritize the integration of digital citizenship education into the curriculum to ensure that students have the knowledge and skills necessary to be responsible digital citizens.

BENEFITS OF DIGITAL CITIZENSHIP EDUCATION

Digital citizenship education has numerous benefits for students, including:

1. **Online Safety:** Digital citizenship education helps students understand how to stay safe while using the internet and technology, including avoiding online predators, cyberbullying, and phishing scams.
2. **Digital Literacy:** Digital citizenship education teaches students how to use technology effectively and responsibly, including understanding how to evaluate the reliability and authenticity of the information, and how to be a good digital citizen by respecting others online.
3. **Critical Thinking:** Digital citizenship education promotes critical thinking by helping students understand the impact of technology on their lives and the world around them.
4. **Digital Responsibility:** Digital citizenship education emphasizes the importance of taking responsibility for one's online actions and understanding the consequences of those actions, both positive and negative.
5. **Career Readiness:** Digital citizenship education provides students with the skills and knowledge they need to be successful in a technology-driven workforce.
6. **Improved Mental Health:** Digital citizenship education can help students understand the potential harm of excessive technology use and promote healthy digital habits.

In short, digital citizenship education is a crucial aspect of a student's education, providing them with the tools and knowledge needed to thrive in a rapidly changing digital world.

CONCLUSION

The findings of this survey on the need for digital citizenship education among adolescents in private schools reveal the importance of educating students on responsible technology use. The results indicate that a significant proportion of students have digital access at home and use the internet for various activities, such as purchasing products online and using social media. However, the results also show that a large number of students are not aware of cyber laws, are unable to assess the reliability and authenticity of online information, and believe that the things they see online are true.

Additionally, the results highlight the need for education on digital well-being, as a significant number of students reported physical discomfort after prolonged online classes. The results also emphasize the need for schools to prioritize the integration of digital citizenship education into the curriculum, as a majority of students were not aware of the term “digital citizenship education.”

In conclusion, the findings of this survey underscore the importance of digital citizenship education for adolescents in private schools. Ensuring that students have the knowledge and skills necessary to be responsible digital citizens will help to promote safe, ethical, and responsible technology use and prepare students for the challenges and opportunities of the digital age.

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