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Digital Citizenship in Secondary Education: A Review of the Evidence

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Abstract

Digital technologies have increasingly become integrated within educational environments, creating new opportunities and challenges relating to communication, learning, and responsible participation within digital spaces. The purpose of the study was to examine digital citizenship in the context of secondary education by reviewing the existing literature to explore its conceptualization, challenges, and educational implications. A narrative literature review approach was used in order to synthesize findings from peer-reviewed journal articles, academic books and relevant scholarly sources using secondary desk research and thematic analysis. The findings indicated that digital citizenship involves responsible use of technology as well as ethical behaviour, digital literacy, critical thinking, civic participation, media literacy and responsible online engagement. The research also revealed that digital competence and media literacy influence how learners engage appropriately in digital environments. The literature also pointed out several challenges that affect implementation such as teacher preparedness, curriculum integration, technology inequities and institutional support. In conclusion, the study emphasizes the importance of digital citizenship education in preparing learners for responsible participation in digitally connected societies and calls for context-sensitive educational approaches.

Keywords

Digital citizenship; Secondary education; Digital literacy; Digital competence; Responsible online participation.

1. Introduction

In recent years, digital technologies have become increasingly integrated into secondary education, transforming the ways in which students communicate, access information, collaborate, and participate in learning activities. The rapid expansion of online learning platforms, social media, and digital communication tools has significantly reshaped educational environments across the world. However, alongside these developments, growing concerns have emerged

regarding students' online behaviour, ethical technology use, digital safety, and participation within digital communities. Ribble (2012) defined digital citizenship as the responsible and appropriate use of technology, emphasizing that students require guidance not only in technological competence but also in ethical and responsible online engagement. This perspective suggests that access to technology alone is insufficient unless learners are equipped with the knowledge, values, and behaviours necessary to navigate digital spaces responsibly.

Digital citizenship has therefore become an essential concern in secondary education as students increasingly engage in digitally connected environments that affect their social and academic development. According to current literature, effective participation in a digital environment is not based solely on technical knowledge. Xu et al. (2019) emphasize that students need skills in critical information analysis, responsible online communication, and appropriate online participation. On the other hand, Buchholz et al. (2020) point out that schools need to move beyond traditional approaches to digital literacy and encourage ethical considerations, empathy, and responsible behaviour among learners within digital spaces.

The growing use of social media and online learning environments has also created several educational challenges for schools and educators. These challenges include cyberbullying, exposure to misinformation, inappropriate interactions, and unsafe digital practices among learners. According to Gleason and von Gillern (2018), social media plays a key role in communication, collaboration, and participation in learning within secondary education. Although these digital environments may facilitate civic engagement and collaborative learning, they also present opportunities for unethical and irresponsible online behaviour. Furthermore, Buchholz et al. (2020) assert that schools should take stronger measures in teaching digital citizenship because of the increasing presence of misinformation and ethical issues in digital environments.

Research relating to digital citizenship has expanded considerably in recent years as educational systems attempt to respond to rapid digital transformation. Prasetiyo et al. (2021) identify several categories of digital citizenship research, including digital competencies, digital readiness, civic engagement, educational policies, and digital ethics. These themes suggest that digital citizenship should increasingly be viewed not only as a technological issue but also as an educational and social responsibility.

Although many studies on digital citizenship have been carried out globally, relatively few have focused on developing contexts where technological limitations, inequalities in access, and variations in teacher preparedness may affect implementation. The literature reviewed in this study has been selected mainly from developed educational settings with relatively advanced technological infrastructure and access to digital resources. Very few studies have comparatively investigated digital citizenship in developing educational

contexts characterized by technological disparities, limited digital resources, inconsistent Internet access and varying levels of teacher preparedness. This disparity indicates a lack of scholarly attention to the successful enactment of digital citizenship in developing education contexts. Consequently, additional research is needed to examine how digital citizenship can be effectively promoted within secondary schools operating within developing educational environments. This review contributes to the expanding literature by synthesizing evidence focused on digital citizenship within secondary education, and also pointing out implications for developing educational contexts. This review, unlike many previous discussions which tend to focus mostly on digital literacy or technology integration, brings together evidence on ethical participation, civic engagement, media literacy, digital competence and implementation challenges into a single analytical framework. Therefore, the purpose of this study is to examine digital citizenship in secondary education through a review of existing literature, with particular emphasis on its conceptualization, educational implications, implementation challenges, and relevance within contemporary educational environments.

The following research questions guided the study:

1. To what extent is digital citizenship conceptualized within contemporary educational literature?
2. What challenges are associated with digital citizenship in secondary education?
3. What approaches are recommended for promoting digital citizenship in schools?
4. What implications do these findings have for developing educational contexts?

2. Literature Review

2.1. Conceptualizing Digital Citizenship

The term digital citizenship generally refers to the effective and responsible use of digital technologies in an online context. Since digital technologies increasingly influence communication, education, and social interaction, researchers have tried to determine the kind of skills and knowledge required for responsible digital participation. While earlier discussions tended to focus more on how individuals can responsibly use digital technologies, recent theories incorporate civic engagement and digital ethics into the discussion. Ribble (2012) gives one of the most common definitions of digital citizenship by stating that it entails the ethical and responsible use of technology. Ribble notes that even though young people tend to have strong technological skills, some are ethically immature and thus cannot behave responsibly while using online technologies. This observation suggests that schools should teach students how to behave responsibly online.

Contemporary scholars broaden this perspective of digital citizenship. According to Choi (2016), digital citizenship is a multidimensional concept that embraces not only ethical principles but also media literacy, civic engagement, critical thinking, and political participation. In other words, the author believes that digital citizenship refers to participation in digital societies rather than proper behaviour at the individual level. In a similar manner, Jones & Mitchell (2016) see digital citizenship as being related to respectful online interactions and youth civic participation through digital tools. The results obtained by Jones & Mitchell suggest that responsible digital engagement may contribute to safer online environments. Furthermore, Ribble (2012) identifies nine dimensions of digital citizenship such as digital etiquette, communication, literacy, security, and rights and responsibilities, indicating that responsible participation in digital spaces is based on one's ethics, technological proficiency, and social responsibility.

In general, the existing literature highlights that digital citizenship is a complex concept embracing more than technological proficiency. Whereas Ribble (2012) mainly concentrates on responsible utilization of technologies, Choi (2016) and Jones & Mitchell (2016) stress that it involves civic participation and respect for others online.

2.2. Digital Citizenship and Secondary Education

Based on the literature, secondary schools have the responsibility of preparing their students for the ability to function well in the increasingly connected societies. With the continued integration of technology in teaching, learning, and communications, schools are expected to assist their students in acquiring values, knowledge, and skills associated with responsible digital behavior. According to Prasetiyo et al. (2021), studies related to digital citizenship have increased remarkably due to the digital revolution in education and society. Themes discussed by the researchers include digital competence, digital readiness, digital ethics, civics, and educational policies. Schools have the responsibility of equipping their learners with the required competencies for responsible digital engagement. Walters et al. (2019) also emphasize the critical importance of schools and teachers in promoting the digital citizenship education. The researcher notes that the learner needs guidance in areas such as digital safety, digital ethics, respect, and responsible digital engagement. Walters suggested that the digital citizenship education be integrated into daily classroom activities.

Hollandsworth et al. (2011) also highlight the importance of incorporating digital citizenship within the broader curriculum at school. Given the continuous engagement of students with technology and social media, both in and out of school, there is a need for schools to respond to problems related to behavior online and digital citizenship. The results indicate that effective online activities require the ability to critically reflect, exhibit ethical behaviour, and communicate effectively. This supports the notion that secondary education

institutions must focus not only on academic performance but also on responsible digital citizenship. Overall, the literature suggests that secondary institutions have a significant part in preparing young people for responsible digital engagement. Authors repeatedly highlight the significance of promoting digital citizenship through curriculum and institutional practices.

2.3. Social Media, Participation, and Online Behaviour

The emergence of social media and Internet-based platforms has changed the way in which students learn, interact, and communicate. The impact of social media on students in secondary schools extends to their academic experience, social interactions, and civic engagement. This is why some scholars have focused on examining both positive and negative implications of social media usage by students. Gleason and von Gillern (2018) have described how social media can contribute to discussion and collaboration among students. As noted by Gleason and von Gillern, digital technologies facilitate interaction and discussion outside classrooms. Students can also participate in civic engagement and collaborate while studying. However, according to the scholars, online interaction exposes students to possible cyberbullying and inappropriate communication. As for Xu et al., they claim that digital competence contributes to responsible online behaviour. Specifically, Xu et al. point out that digitally competent students engage in more constructive discussion online. The authors further explain that adolescents need to be able to assess risks and communicate effectively online. Jones & Mitchell (2016) similarly relate digital citizenship to respectful online communication and active civic engagement of youth. The results of their study suggest that young people displaying positive digital citizenship behaviours will be able to engage respectfully in online communities and actively participate in civic processes. Moreover, according to Ohler (2012), schools should train children to actively participate in digital societies which define social interaction today. Responsible digital participation requires the knowledge of ethical issues connected to online participation. Generally, all sources agree that although social media facilitate communication, collaboration, and civic engagement, at the same time it carries many dangers such as cyberbullying, misinformation, and inappropriate online conduct. Hence, there is a need to prepare adolescents with appropriate skills.

2.4. Digital Competence and Digital Literacy

Digital competence and digital literacy are two very important concepts in terms of discussing digital citizenship and modern education. With today's learners engaging in online classes and communicating on different digital platforms, researchers claim that not only are technical skills needed to become an active member of the digital world. According to Xu et al. (2019), there is a strong connection between digital competence and responsible behavior on the Internet. The results of the research prove that students with stronger digital competencies, the more likely they will critically examine online information,

use proper language, and understand online dangers. Choi (2016) supports the idea that besides technical skills, learners should also possess critical digital literacy, civic engagement, media literacy, and ethical participation. Based on this point of view, students have to be able to critically analyze digital information and its social aspects.

Ng (2012) presents a comprehensive definition of digital literacy by stating that it requires technological, cognitive, and socioemotional skills. Based on Ng, being digitally literate means evaluating information on the web critically, engaging in responsible communication, and adapting to changes in technology. In a similar fashion, Martin (2008) states that digital literacy encompasses awareness, knowledge, attitudes, and skills needed to use technologies effectively. Taken together, these sources indicate that digital literacy is much broader than using digital technologies only. It requires critical thinking, ethical awareness, evaluation of information, and proper communication.

2.5. Ethical and Critical Dimensions of Digital Citizenship

According to contemporary literature, digital citizenship entails possessing ethical skills, including empathy, critical thinking, responsible participation in the online environment, and being able to critically assess information posted online. In light of the growing significance of digital technology in shaping social interactions and communications, it is necessary to equip students with both technical skills and ethical competencies. Buchholz et al. (2020) highlight the relevance of empathy, ethical awareness, and critical thinking in educating young people about digital citizenship. The researchers note that digital citizenship requires more than simply equipping students with technical skills; it involves preparing them to deal with misinformation and conflicts online, as well as other ethical concerns in digital spaces. The connection between critical digital citizenship and misinformation is also explored by Dass and Kumar (2025). In their view, for young people to participate responsibly in digital society, they need to be equipped with critical evaluation skills, which will help them differentiate factual information from false and misleading information posted online. Choi (2016) equally emphasizes the ethical and civic aspects of digital citizenship, suggesting that digital engagement must include proactive and responsible interactions within digital communities. Likewise, Jones and Mitchell (2016) consider digital citizenship to be linked to respectful interaction and positive civic engagement among teenagers; the research shows remarkable consensus that digital citizenship should encompass ethics, empathy, critical thinking, and responsible community engagement within digital spaces.

2.6. Challenges in Implementing Digital Citizenship Education

While there has been an increase in the recognition of digital citizenship as an essential element of contemporary education, schools still experience various obstacles associated with digital citizenship education. The literature has established barriers related to curricular integration, teacher preparation,

technological disparity, policy constraints, and the inconsistency of implementation. These obstacles may hinder schools from offering students the opportunity to develop appropriate digital conduct. According to Prasetiyo et al. (2021), the main barriers to education for responsible online engagement include teacher preparation and curricular integration. As argued by the authors, numerous teachers can be unprepared and unconfident in teaching lessons related to digital ethics, online safety, and appropriate digital engagement. Additionally, in some educational settings, digital citizenship does not become a formal part of the curriculum, leading to scattered and inconsistent instruction. The research implies that the efficient implementation of digital citizenship education requires teacher professional development that allows educators to have the skills to deliver such lessons successfully. In a similar vein, Ribble (2012) highlights the difficulties with fragmented implementations and digital divides. According to Ribble, while many schools realize the significance of digital citizenship, the existence of a digital divide among learners means that there will be inequalities amongst these learners. Students with disadvantaged backgrounds in terms of educational or socioeconomic conditions may face barriers when it comes to access to technology as well as other forms of technology-based support. Ultimately, this results in an inability to provide all learners with similar chances to become competent online citizens. Education for responsible online engagement must take into consideration both the problems of digital inequality and digital inclusion. Lastly, Hollandsworth et al. (2011) stress the need for better curriculum integration in digital citizenship instruction. As the researchers note, digital citizenship often becomes an isolated topic and not a component of the overall curriculum at schools. Because of that, schools have trouble forming coherent strategies for teaching responsible digital citizenship and online behavior. This is why Hollandsworth et al. advise that a holistic approach be adopted by schools to deal with this matter. Equally, Walters et al. (2019) highlights instructional and institutional challenges that may arise when incorporating digital citizenship education in schools. According to the research, some of the potential obstacles that schools will encounter include limited instructional resources, lack of adequate teacher assistance, and different perceptions of digital citizenship concepts. Furthermore, Walters proposes that for meaningful implementation to occur, collaboration between teachers, school administrators, policymakers, and curriculum developers is necessary. There is consensus in the literature that schools experience numerous obstacles while implementing digital citizenship education successfully. Some of these barriers include teacher inadequacies, poor curriculum integration, digital disparity, insufficient technological resources, and policy constraints. Although Prasetiyo et al. (2021) and Walters et al. (2019) emphasize instructional and institutional challenges, Ribble (2012) stresses problems of digital equity and fragmented implementation. In the same vein, Hollandsworth et al. (2011) underscore the need for full incorporation of digital citizenship education in the curriculum.

Although these implementation challenges are well-documented in the literature, few studies have examined how such barriers are operating within developing educational systems. Further problems that might arise from the lack of technological infrastructure, unequal internet access, lack of adequate training opportunities for teachers, and lack of resources might cause additional challenges that have not been explored in the existing literature yet.

2.7. Summary of Literature

As a whole, the literature makes clear that digital citizenship has developed into a multidimensional construct, involving ethical participation, digital literacy, citizenship, critical thinking, and responsible online behavior. Whereas earlier concepts of digital citizenship concentrated more on technology usage and digital etiquette, contemporary perspectives increasingly concentrate on social, ethical, and participative dimensions of digitally mediated engagement. In general, it can be noted that there is a widespread recognition of the critical role that secondary schools play in preparing students to engage in digital spaces ethically, critically, and safely. Moreover, the literature points out that social media and digital communication technologies significantly affect the academic experience, social relationships, and citizenship of secondary school students. As a result, scholars point out the necessity of fostering students' digital competence, critical information literacy, ethical understanding, and digital etiquette. At the same time, the analysed literature identifies multiple barriers to digital citizenship education such as teachers' lack of preparedness, poor curricular integration, digital inequality, policy restrictions, and limited access to digital tools. While there has been an increasing global interest in digital citizenship, it is necessary to note that relatively little attention has been paid by the literature to the topic of digital citizenship in developing contexts. These gaps shed light to the need for further research examining how secondary school, particularly within developing societies, can effectively promote responsible and ethical digital participation.

3. Materials and Methods

3.1. Research Design

The study adopted a narrative literature review approach using secondary desk research and thematic analysis. Secondary desk research was employed exclusively to examine digital citizenship in secondary schools, specifically issues related to responsible digital participation, ethical conduct online, digital literacy, and difficulties encountered in teaching about digital citizenship. As pointed out by Snyder (2019), literature reviews play an important role in reviewing existing studies, recognizing gaps in the literature, and developing a broader understanding of the research problem under investigation. In this case, narrative literature review was deemed appropriate as the research sought to synthesize information gathered through the review of relevant academic studies

rather than collecting primary data from the participants. The narrative literature review allowed the study to analyse various perspectives presented in existing scholarship concerning digital citizenship. According to Braun and Clarke (2006), thematic analysis is useful in exploring qualitative data, and it helps in identifying and interpreting patterns within the literature. For this reason, thematic analysis was appropriate in helping to identify and categorize different themes associated with digital citizenship, digital competence, online behaviour, ethical engagement, and difficulties in implementation within schools.

3.2. Data Sources and Search Strategy

Sources for literature in this study were gathered from peer-reviewed journal articles, scholarly books, and academic journals on the topic of digital citizenship and secondary education. The sources were found using academic databases and search engines such as Google Scholar, JSTOR, ERIC, and ScienceDirect. These databases were chosen due to the availability of credible academic literature related to education, digital literacy, and educational technology.

Some of the key search terms and keywords used during the literature search include:

- digital citizenship
- digital literacy
- digital competence
- responsible online participation
- social media and education
- ethical online participation
- digital citizenship in secondary education

In line with the guidelines provided by Xiao and Watson (2019) for conducting structured literature reviews, the study emphasized identifying studies published from 2008 to 2025 that were relevant to both foundational and contemporary conceptualizations of digital citizenship. Foundational studies like Ribble (2012) and Martin (2008) were considered in this study due to their contribution to the concept of digital citizenship and digital literacy.

As highlighted by Xiao and Watson (2019), a structured literature search strategy was used to identify studies related to digital citizenship, digital literacy, responsible online participation and secondary education.

3.2.1. Inclusion and Exclusion Criteria

The literature reviewed for this paper includes articles in academic journals and scholarly publications concerning the following themes:

- digital citizenship,
- digital literacy and digital competence,
- online behavior and ethical participation,
- social media and education,
- digital citizenship in secondary education.

Articles that have been considered for inclusion into the review include those that:

- have been written in English;
- deal with digital citizenship or related issues;
- are relevant for secondary education and digital participation; and
- are helpful for exploring the ethical, social, or educational aspects of digital participation.

Excluded from this review include all materials that did not meet the above inclusion criteria, including those:

- which are non-academic websites or unpublished works;
- that have no direct relation to education or digital participation;
- lack relevance to digital citizenship; or
- do not seem academically credible.

3.2.2. Search Process and Study Selection

From late April to early May, 2026, literature searches were conducted using Google Scholar, ERIC, JSTOR, and ScienceDirect. The search yielded 145 results. After deleting 18 duplicate items, 127 titles and abstracts were reviewed for relevance. Ninety-three recordings were eliminated because they did not address digital citizenship, secondary education, or responsible digital involvement. Thirty-four full-text sources were assessed, yielding a final sample of 22 sources meeting the inclusion criteria.

Table 1

Search Process and Study Selection

Stage	Number
Records identified	145
Duplicates removed	18
Records screened	127
Records excluded	93
Full texts reviewed	34
Final studies included	22

Note: The final review sample consisted of 22 scholarly sources that satisfied the inclusion criteria and formed the basis of the thematic analysis.

3.3. Data Analysis Procedure

The chosen research articles were subjected to thematic analysis. According to Braun & Clarke (2006), thematic analysis is a process that includes identifying, analyzing, and reporting themes that emerge from the data. It was deemed suitable because it enabled the research to integrate results derived from various academic publications on digital citizenship and secondary schooling.

In the course of the analysis process, the literature was systematically reviewed to uncover the recurring themes related to:

- Digital citizenship conceptualizations;
- Digital competence and digital literacy;
- Online behavior and ethical participation;
- Social media and civic participation; and,
- Challenges associated with the implementation of digital citizenship education.

The relevant studies were then categorized based on similarities, recurring concepts, and connections in the literature. During the coding process, each study was examined line-by-line to identify recurring concepts. Similar codes were grouped into larger categories, which were collapsed into themes. Themes were continuously checked against the research questions to ensure consistency and relevance across the analysis process.

The emerging themes from the literature review include:

- Digital citizenship conceptualizations;
- Ethical and critical aspects of digital citizenship;
- Digital literacy and digital competence;
- Social media and online behaviors; and,
- Barriers associated with implementation within educational settings.

Braun & Clarke (2006) point out that thematic analysis consists of several steps which include becoming familiar with the data, coding, generating themes, reviewing themes, and reporting the findings. In addition, Nowell et al. (2017) state that thematic analysis enhances credibility and trustworthiness because findings are systematically organized and interpreted.

According to Nowell et al. (2017), thematic analysis helps add credibility in the sense that it allows one to properly organize and interpret the findings to uncover major trends, issues, and perspectives in relation to digital citizenship in secondary education.

The use of multiple peer-reviewed articles also adds credibility and trustworthiness to the study findings.

3.4. Ethical Considerations

In this study, only secondary data collected from the academic literature available in the published sources has been used; therefore, no human subjects have been involved in this study. For this reason, there is no need for any ethical approval for this study. Nevertheless, this study has strictly adhered to the principles of academic honesty, ethical source use, and ethical reporting of research findings. All sources cited in this study have been properly cited and referenced in accordance with APA (7th edition) referencing guidelines.

Furthermore, the interpretation of the literature was conducted in an unbiased, objective, and impartial manner, while remaining consistent with the original interpretations of the respective authors.

4. Results

4.1. Digital Citizenship as a Multidimensional Educational Concept

The results indicate that digital citizenship should be seen as a multidimensional phenomenon, which goes far beyond merely using technologies responsibly. The majority of reviewed studies suggest that digital citizenship goes beyond the ability to use new technologies and covers ethical behaviour, participation in civic life, media literacy, critical thinking, digital etiquette, and being actively involved in digital society. Though the definition offered by Ribble (2012) is limited to the notions of responsible technology use, digital etiquette, and online behaviour, the analysis provided by Choi (2016) reveals that digital citizenship also implies other dimensions, namely democratic participation, critical engagement, and civility online. Moreover, Choi et al. (2017) prove that there are clear indicators of critical awareness, participation, and ethical behaviour online associated with digital citizenship. In their turn, Jones and Mitchell (2016) find that respectful online interaction and civics are two key factors associated with youth digital citizenship.

In general, While Ribble (2012) primarily conceptualizes digital citizenship as responsible technology use and digital etiquette, Choi (2016) extends the concept to include democratic participation and civic engagement. This evolution suggests that digital citizenship has shifted from a predominantly behavioural framework toward a broader social and participatory model that recognizes the role of digital technologies in civic life. These results imply that the notion of digital citizenship has expanded from a limited focus on technological use and online behaviour to broader aspects, including ethics, social responsibility, and civic engagement.

4.2. Educational Implications of Digital Citizenship

The findings show that the issue of digital citizenship has grown significantly as a result of the fast adoption and integration of digital technologies by making online environments an integral part of students' day-to-day activities. Increased access to digital environments has made it possible for learners to interact, communicate, retrieve information and take part in activities in society in new ways. As such, there have been increased expectations for educators to train learners on how to behave in digital environments responsibly. In their study, Prasetiyo et al. (2021) showed that there is growing pressure on educational institutions to develop skills among learners with regard to ethical participation, digital literacies, and responsibility in online environments. The researchers contend that the issue of digital citizenship has emerged as a critical research area as a result of growing concerns about the behaviour of students online. According to Hollandsworth et al. (2011), the concept of digital citizenship extends beyond learners and involves teachers, parents, schools and wider communities.

These findings imply that educational institutions cannot assume that users will acquire responsibility while using digital spaces due to regular interaction with technological advancements. Interaction with digital spaces will not necessarily lead to ethical engagement in digital spaces. There is a possibility that educational institutions need to provide assistance to users on how to engage responsibly within digital spaces.

4.3. Digital Competence, Media Literacy, and Participation

These results highlight a significant correlation between digital competence and appropriate online behavior. The reviewed literature consistently indicates that learners with higher levels of digital competence are more likely to communicate and participate effectively within digital environments. According to Xu et al. (2019), students with higher levels of digital competence tend to communicate and behave in digital environments responsibly and appropriately. Moreover, Ng (2012) states that digital literacy implies a number of competencies such as critical thinking skills and socio-emotional competencies and not only technical ones. Von Gillern et al. (2024) also state that digital literacy includes being actively involved and critical when communicating online. Xu et al. (2019) found that digital competence predicts responsible online behavior. Ng (2012) argues that digital literacy is more than technical competence, it also includes cognitive and socio-emotional dimensions. In the same way, von Gillern et al. (2024) emphasize the significance of critical engagement in online interaction. Taken together, these perspectives suggest that effective digital citizenship requires a combination of technical, analytical, and social skills.

The results also highlight the interconnectedness of media literacy and digital citizenship since both entail the critical assessment of online material, the selection of reliable sources, and responsible engagement in digital environments. The reviewed articles demonstrate that technical skills are not enough for successful participation in the digital sphere. From these results, it can be concluded that digital citizenship education could extend from just training people on ICT-related technical skills to building their capacity in:

- critical thinking;
- media literacy skills;
- appropriate communication skills.

The literature also indicates that learners are in increasing need of skills such as assessing digital information, recognizing false information, and making appropriate judgments about digital information. Another implication is that media literacy could be an essential aspect of citizenship education today.

4.4. Ethical and Behavioural Implications

From the above findings, it can be argued that digital citizenship is more than simply using technology but rather involves ethics, empathy, proper communication, and participation. The reviewed studies consistently identify ethical behaviour as a key component of responsible digital citizenship. The

authors of Buchholz et al. (2020), for instance, highlight the importance of empathy, ethics, and critical thinking in digital citizenship training. Another dimension discussed by Jones & Mitchell (2016) in their discussion of youth digital citizenship includes responsible behaviour and civic participation online. Buchholz et al. (2020) highlight the importance of empathy, ethics, and critical thinking, as well as respectful interaction and civic participation (Jones and Mitchell, 2016). These views collectively indicate that digital citizenship involves individual ethical responsibility and engagement in digital communities.

Furthermore, these examined studies reveal growing concerns about:

- False information;
- Cyberbullying;
- Irresponsible communication on the internet.

These issues suggest that technology access is insufficient to ensure appropriate behavior in the virtual world.

4.5. Curriculum and Implementation Implications

According to the findings, the success of digital citizenship education largely relies on effective integration of curriculum, teacher readiness, and institutional assistance. From the literature review, it is evident that schools face challenges during the implementation process when the integration is poorly planned. According to Tadlaoui-Brahmi et al. (2022), implementation barriers can be linked to poor curriculum integration and insufficient institutional help. As noted by Pala (2023), the need for incorporating digital citizenship principles in social studies education is crucial due to the subject's focus on nurturing citizenship skills and responsibility. Additionally, from the literature review, the readiness of the teachers plays a vital role in enhancing the efficiency of digital citizenship education. In addition, according to Tapingkae et al. (2020), systematic educational methods may impact students' digital citizenship behaviors and learning outcomes. The literature indicates that successful implementation relies on various interrelated aspects. Tadlaoui-Brahmi et al. (2022) underscore curriculum integration and institutional support, Pala (2023) accentuates citizenship-oriented instruction, and Tapingkae et al. (2020) concentrate on pedagogical methods that affect student behavior. These findings together suggest that successful implementation necessitates synchronized curriculum, instructional, and institutional initiatives.

5. Discussion

5.1. Implications of Digital Citizenship in Education

These findings have important implications for educational policy and practice. Digital citizenship is not just a technical skill. It is a core educational competency that helps one to make ethical decisions, to participate critically and to be a responsible contributor to a digital society. Learners not only require assistance in using digital technologies but should also receive help in assessing

the validity of digital information, respectful communication, and responsible participation.

It can be concluded that the findings suggest that educational institutions may have to deliberately include digital citizenship:

- in curriculum design;
- in classroom teaching;
- in their policies and practices.

Another conclusion that can be drawn on the basis of the findings of this study is that educators may require training and professional development regarding digital citizenship education. One other implication of the findings is that educational institutions may have to have some policies related to safe and ethical use of technology. It can therefore be argued that schools have an important role not only in ensuring the academic success of their students but also in making them responsible citizens of digitally networked societies.

5.2. Digital competence and Responsible Participation

There is a link between digital competence and responsible participation which implies that there needs to be more to digital learning beyond equipping students with the technical know-how. It is evident from the study that there is a need for students to acquire the capacity to critically evaluate information, become digitally literate and use appropriate communication protocols in order to benefit from digital citizenship education. This could help them deal with misleading information, evaluate risk factors and participate responsibly in digital environments.

5.3. Ethical and Behavioural Considerations

The study findings show that institutions might require additional assistance with regards to:

- Making moral decisions;
- Critically analyzing digital information;
- Conducting oneself in a respectful manner online.

Another implication from the literature review is that the concept of digital citizenship might prove instrumental for learners to cope with more sophisticated digital realities associated with misinformation, online disputes, and digital misbehaviour. It seems likely that morality and critical thinking might emerge as key elements of education in digitally interconnected societies.

5.4. Curriculum and Implementation Considerations

The implications of these findings can be stated as follows:

The barriers to implementation identified in this review suggest that the success of digital citizenship education depends on institutional capacity as well as the content of the curriculum. Without sufficient teacher training, technology resources and policy support, schools could find it challenging to turn the principles of digital citizenship into meaningful classroom practice. It is also

indicated in the literature review that curriculum integration is likely to be more effective if digital citizenship is viewed as an educational responsibility across curriculums instead of a separate concept. Yet another implication derived from the findings is that schools will need greater support from institutions, training for teachers, and educational tools for effective digital citizenship education.

6. Study Limitations and Future Research

The limitations of this research include using secondary data and academic writings as sources. In addition, this research only uses English-language literature, which might be limiting since other languages' viewpoints have been excluded. Furthermore, the review does not use any empirical data from direct interviews with teachers and students. As a result, the results are derived only from interpretations and conclusions made from available literature.

6.1. Future Research Implications

Future research might thus examine:

- perceptions of teachers regarding digital citizenship education;
- the experience and comprehension of students on digital citizenship education; and
- obstacles connected with digital citizenship education.

Additional studies that would address the development of educational settings could further aid in enhancing the knowledge base regarding digital citizenship education.

7. Discussion Summary

These findings suggest important implications for educational policy and practice. Digital citizenship has evolved into a multidimensional concept involving ethical participation, digital literacy, civic engagement, critical thinking, and responsible online behaviour. The reviewed literature demonstrates that digital citizenship has become increasingly important within contemporary education because of growing technological integration and changing patterns of communication and social interaction. The findings further suggest that digital competence and media literacy influence responsible participation within online environments. Ethical awareness, empathy, and critical thinking also emerged as important dimensions associated with effective digital participation. However, the literature identifies several implementation challenges, including curriculum integration, teacher preparedness, and institutional support.

Collectively, these findings indicate that schools play an important role in preparing learners to participate responsibly and ethically within digitally connected societies while also addressing challenges associated with contemporary digital environments.

7.1. Summary of Major Findings

The study findings clearly show that the concept of digital citizenship has developed into a multidimensional concept, one that goes beyond responsible technology usage. The research shows that digital citizenship involves aspects such as ethics, digital literacy, critical thinking, civil involvement, media literacy, respectful communication, and responsibility in digital environments.

The study findings further illustrate that the concept of digital citizenship is becoming increasingly significant in the education sector due to the development of technologies and changing patterns of communication and socialization. As a result, there is the recognition of schools, educators, and parents as key stakeholders in preparing learners for digital spaces.

Another important finding in this research is that digital competence, media literacy, and responsible online involvement are interconnected and correlated. According to the review of literature, individuals who have higher levels of digital competence are able to think critically, communicate well and be responsible participants in digital spaces.

Ethics, empathy, and critical thinking were shown to be some of the aspects of digital citizenship. There was also growing concern over aspects such as misinformation, cyber-bullying, ethical issues in the online space, and digital participation.

In addition, the reviewed literature identified several implementation challenges, including that of curriculum integration, teacher preparedness, institutional support, and inequalities in access to digital resources.

8. Conclusion

The results of this study have revealed that digital citizenship is not just about being a responsible user of technology but also encompasses ethical use, critical thinking, civic engagement, digital literacy, and responsible behavior. This study has also demonstrated the need for integrating digital citizenship education in today's environment due to the fact that the current generation operates in digital worlds which impact their social life and learning experiences. It can be asserted from this study that educational institutions should no longer take it for granted that learners will automatically acquire responsible digital behaviors from their interactions with technology. Instead, digital citizenship education needs to be consciously incorporated into the school curriculums along with teachers being well-prepared for the task. Furthermore, educational environments that possess different technological infrastructure and varied levels of teacher preparation may face difficulties in implementing digital citizenship education effectively. This review adds to the existing scholarship, synthesizing the evidence on digital citizenship in secondary education, while emphasizing the challenges of implementation in developing educational contexts. The findings indicate that digital citizenship education needs a balanced focus on ethical behaviour, media literacy, critical thinking, civic participation and institutional support.

The need for digital citizenship instruction is becoming increasingly significant when it comes to equipping learners for proper involvement in digital societies. In light of the technological changes that are being witnessed within the sphere of education, the importance of producing responsible digital citizens cannot be underestimated for both academic achievement and societal development.

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Conflict of Interest

The author declares no conflict of interest.

Use of Artificial Intelligence (AI) Statement

The author used artificial intelligence (AI) tools to assist with language editing, organization of ideas, and structural support during manuscript preparation. All content was critically reviewed and approved by the author and full responsibility for the accuracy, integrity, and interpretation of the work remains with the author.

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